

THE ZOOLOGICAL RECORD

Museum

VOLUME 96 SECTION 4 1959

Z

7991

Z 87

v. 96

no. 4

COELENTERATA

COMPILED BY

H. DIGHTON THOMAS, M.A., Ph.D.

LONDON

PUBLISHED BY

THE ZOOLOGICAL SOCIETY OF LONDON

PRICE FIVE SHILLINGS

AUGUST, 1961

It will greatly help in the production of The Zoological Record and assist the Recorders of the individual sections, if authors will forward a copy of their paper or memoir to the Editor of the Zoological Record, The Zoological Society of London, Regent's Park, London, N.W.1. In the case of separately printed copies of articles so forwarded, the original pagination should be given.

All business correspondence concerning the Record should be addressed to the Scientific Director, The Zoological Society of London, Regent's Park, London, N.W.1.

THE MUSEUMS JOURNAL

PUBLISHED BY THE MUSEUMS ASSOCIATION

22 Fitzroy Street, Fitzroy Square, London, W.1.

This journal, which is published monthly, contains articles, reviews and technical notes on every Museum aspect of zoology and other sciences. It is the only English journal which deals with the installation and preservation of exhibits, and which reviews Museum work in all parts of the world.

It is published monthly price 4s., by the Association and can be obtained from the above address. It is distributed free to all members of the Museums Association (Subscription £3 3s. 0d. per annum), of which full particulars are obtainable from the Secretary at the above address.

COELENTERATA

COMPILED BY

H. DIGHTON THOMAS, M.A., Ph.D.

Vol. 96

© Zoological Society of London, 1961

COLENTERATA

THE COLENTERATA OF THE WORLD

I

o
N

o
li
F
(

u
F
1

le
5

a
C
P

B

to

A
F
F
to

A
N

4. COELENTERATA

Commencing with Volume 97, 1960, the Graptolithina will be recorded in
Section 14, Protochordata

	CONTENTS	PAGE
I. TITLES	.. .. .	3
II. SUBJECT INDEX	.. .. .	13
III. SYSTEMATIC INDEX	.. .. .	17
	Hydrozoa, p. 17 ; Graptolithina, p. 25 ; Dipleurozoa, p. 26 ; Scyphozoa, p. 26 ; Anthozoa, p. 26 ; Ctenophora, p. 36 ; Incertae Sedis, p. 36.	

I.—TITLES

Opinion 571. Designation under the Plenary Powers of lectotypes for three species of graptolites. Bull. zool. Nom. 17 (3-5) 1959 : 106-111.

Opinion 574. Validation under the Plenary Powers of the specific name *gemmascens* Esper, [1794], as published in the binomen *Madrepora gemmascens* (Class Hydrozoa, Order Stylasterina). Bull. zool. Nom. 17 (3-5) 1959 : 132-133.

Abbott, D. P. see Light, S. F.

Abel, E. F. Zur Kenntnis der marinen Höhlenfauna unter besonderer Berücksichtigung der Anthozoen. Pubbl. Staz. zool. Napoli 30 Suppl. 1959 : 1-94 pls. 1-4 text-figs. 1-21. [German with Italian summary].

Abeloos, M. Régénération et morphogénèse chez les Actinies. Proc. int. Congr. Zool. 15 (1958) 1959 : 587-589.

Albahary, C. & Budker, P. Dangers des animaux aquatiques. Encyclopédie Médico-Chirurgicale 16078 C10 : 1-8 text-figs. 1-3. Paris, 1958. [Coelenterates p. 6]

Allen, F. E. see Wood, E. J. F.

Allen, K. see Simpson, J. W.

Anon. British Caenozoic Fossils : 1-130 pls. 1-44. Brit. Mus. (Nat. Hist.), London, 1959.

Astrova, G. G. see Ivanova, E. A.

Atkins, L. S. *Physalia physalis* recorded from entrance to Cork Harbour. Irish Nats. J. 13 2 1959 : 44.

Aurich, H. J. II. Verbreitung der Medusen und Actinulae von *Ectopleura dumortieri* (van Beneden) und *Hybocodon prolifer* L. Agassiz in der südlichen Nordsee. Helgoländ. wiss. Meeresunters. 6 2 1958 : 207-228 text-figs. 1-11.

Avset, K. The gonophore-development in the genus *Hydractinia* van Beneden I. *Hydractinia echinata* Flem. Nytt Mag. Zool. 8 1959 : 25-33 text-figs 1-6.

Awapara, J. see Simpson, J. W.

VOL. 96

Balke, E. & Steiner, G. Über die chemische Nahrungswahl von *Pelmatohydra oligactis* Pall. Naturwissenschaften 46 1 1959 : 22.

Barskaya, V. F. The most Archaic Halysitidae of the Central Part of Taimyr. Byull. Mosk. Obshch. Isp. Priro. N.S. Otd. Gheol. 34 4 1959 : 89-96 pls. 1, 2.

Bartholomew, R. W. see Thomas, H. D.

Bassot, J.-M. Quelques données histochimiques et cytologiques sur les organes photogènes. Proc. int. Congr. Zool. 15 [1958] 1959 : 709-710.

Bayer, F. M. Octocorals from Surinam and the adjacent coasts of South America. Natuurw. Stud. Suriname en Ned. Antillen No. 20 1959 : 1-43 text-figs. 1-21.

Bayer, F. M. (1). A review of the gorgonacean genus *Placogorgia* Studer, with a description of *Placogorgia tribuloides*, a new species from the Straits of Florida. J. Wash. Acad. Sci. 49 2 1959 : 54-61 text-figs. 1-15.

Bayer, F. M. see Deichmann, E.

Beauvais, L. Une nouvelle forme de Polypier dans le Jurassique supérieur de l'Yonne : *Icaumbelia michelini* nov. gen., nov. sp. Bull. Soc. géol. Fr. (6) 8 6 1959 : 621-628 pl. 32b text-figs. 1-3.

Bieri, R. Dimorphism and Size Distribution in *Velella* and *Physalia*. Nature, Lond. 184 4695 1959 : 1333-1334.

Bieri, R. & Krinsley, D. N. Trace elements in the pelagic coelenterate, *Velella lata*. J. mar. Res. 16 3 1958 : 246-254.

Blanc, J.-J. Campagne de la *Calypso* dans le golfe de Gênes (1957). I. Recherches sur les vases du golfe de Gênes (Région de Portofino). Ann. Inst. océanogr. Paris N.S. 37 4 1959 : 273-287 text-figs. 1-7.

Blumenthal, M. Der Vulkan Ararat und die Berge seiner Sedimentumrandung. Rev. Fac. Sci. Univ. Istanbul 23B 3-4 1958 : 177-327 11 pls. 2 maps.

d 1-2

- [Bogachev, V. V. Zagadochnaya paleontoloicheskaia nakhodka.] Priroda 6 1959 : 103 text-fig.
- Bolin, R. see Light, S. F.
- Boschma, H. Revision of the Indo-Pacific species of the genus *Distichopora*. Bijdr. Dierk. 29 1959 : 121-171 pls. 1-16 text-figs. 1-3.
- Boschma, H. (1). The species problem in corals. Proc. int. Congr. Zool. 15 (1958) 1959 : 246-248.
- Bossanyi, J. A Simple Apparatus for Routine Zooplankton Counts. J. Cons. intern. Explor. Mer 24 3 1959 : 452-454 text-fig. 1.
- Bouillon, J. Nature et structure de la mésogée des Hydropolypes. Bull. biol. 93 1 1959 : 64-72 pls. 4, 5.
- Bouillon, J. Résultats scientifiques des Missions Zoologiques au Stanley Pool subsidées par le Cemubac (Université Libre de Bruxelles) et le Musée Royal du Congo (1957-1958). IV. *Limnocyba congoensis* nouvelle espèce de Limnoméduse du Bassin du Congo. Ann. Mus. Congo belg. sér. 8vo. 71 1959 : 175-185 pls. 27-30 map text-figs. A-D.
- Bovaird, J. see Lenhoff, H. M.
- Brattström, H. see Carlgren, O.
- Brinckmann, A. Über den Generationswechsel von *Eucheilota cirrata* (Haeckel 1879). Pubbl. Staz. zool. Napoli 31 (1) 1959 : 82-89 text-figs. 1-3. [German with Italian summary.]
- Brinckmann, A. (1). Über das Vorkommen von *Niobia dendrotenacula* Mayer in Mittelmeer. Pubbl. Staz. zool. Napoli 31 (2) 1959 : 334-336 text-figs. 1, 2. [German with Italian summary.]
- Broekhuysen, G. J. & Taylor, H. The Ecology of South African estuaries. Part X. Kosi Bay estuary system. Ann. S. Afr. Mus. 44 7 1959 : 279-296 pls. 5, 6 text-fig. 1.
- Budker, P. see Albahary, C.
- Bullivant, J. S. Photographs of the Bottom Fauna in the Ross Sea. N.Z. J. Sci. 2 4 1959 : 485-497 text-figs. 1-10.
- Burnett, A. L. Histophysiology of growth in hydra [sic]. J. exp. Zool. 140 2 1959 : 281-341 pls. 1-5.
- Burnett, A. L. (1). Hydra [sic]: An Immortal's Nature. Nat. Hist. N.Y. 68 9 1959 : 498-507 15 text-figs.
- Carl, G. C. & Guiguet, C. J. Alien Animals in British Columbia. Handb. Brit. Columb. Prov. Mus. No. 14 1958 : 1-94 text-figs. [Asiatik Anemone p. 80.]
- Carlgren, O. Reports of the Lund University Chile Expedition 1948-49. 38. Corallimorpharia and Actinaria, with description of a new genus and species from Peru. Acta Mus. Lund. N.S. (2) 56 6 1959 : 1-39 text-figs. 1-20. [One new trivial name, p. 13 footnote, was introduced by H. Brattström.]
- Chang, Chao-Cheng. Plicatomurus [sic] gen. nov. (Favositidae) et Verkhnesiluriskikh otlozhenii tzentral'nogo Kazakhstana. [Plicatomurus [sic] gen. nov. (Favositidae) from the Upper Silurian of Kazakhstan.] Paleont. Zhurn. 1959 3 1959 : 27-32 pls. 1, 2. [Russian only.]
- Chang, J. J. & Johnson, F. H. The influence of pressure, temperature and urethane on the luminescent flash of *Mnemiopsis leidyi* [sic]. Biol. Bull. Woods Hole 116 1 1959 : 1-14 text-figs. 1-7.
- Chapman, G. The Mesogloea of *Pelagia noctiluca*. Quart. J. micr. Sci. 100 4 1959 : 599-610 figs. 1-7.
- Chapman, G. B. & Tilney, L. G. Cytological Studies of the Nematocysts of Hydra [sic]. I. Desmonemes, Isorhizas, Cnidocils, and Supporting Structures. J. Biophys. Biochem. Cytol. 5 1 1959 : 69-78 pls. 22-27.
- Chapman, G. B. & Tilney, L. G. (1). Cytological Studies of the Nematocysts of Hydra [sic]. II. The Stenoteles. J. Biophys. Biochem. Cytol. 5 1 1959 : 79-84 pls. 28-33.
- Chatton, M. see Hudson, R. G. S.
- Chen, M. Nekotorie Siluriskie i Devoniskie Stromatoporoidei i Korallui iz Raiona Lushanya Vostochnoi Chasti Provintzii Ghuichzhou. Acta palaeont. Sinica 7 4 1959 : 285-318 pls. 1-7 text-figs. 1-3. [Chinese with Russian translation.]
- [Chudinova, I. I. Devonian Thamnoporidae of southern Siberia.] Trav. Inst. paleont. Acad. Sci. U.R.S.S. 73 1959 : 1-146 pls. 1-34 text-figs. 1-33. [Russian only.]
- Cloud, P. E., Jr. Nature and Origin of Atolls. Proc. 8th Pac. Sci. Congr. 3A 1957 : 1009-1024 figs. 1-6.
- Colquhoun, D. J. Stratigraphy and Palaeontology of the Nipissing-Deux Rivières Outliers. Proc. geol. Assoc. Canada 10 1958 : 83-93 text-fig. 1 (map).
- Conil, R. Recherches stratigraphiques sur les terrains Dinantiens dans le Bord Nord du Bassin de Namur. (Région s'étendant de la Dendre à l'Orneau). Mém. Acad. belge Cl. Sci. 4° (2) 14 5 1959 : 1-159 pls. 1-17 text-figs. 1-27.
- Cranwick, J. S. & Fritz, M. A. Coral Fauna of the Upper Abitibi River Limestone. Proc. geol. Assoc. Canada 10 1958 : 31-81 pls. 1-6.
- Crisp, D. J. & Fischer-Piette, E. Répartition des principales espèces intercotidales de la côte Atlantique française en 1954-1955. Ann. Inst. océanogr. Paris N.S. 36 2 1959 : 275-287 text-figs. 1-22. [Anthozoa pp. 326-327.]
- Crowell, S. Differential responses of growth zones to nutritive level, age, and temperature in the colonial hydroid *Campanularia*. J. exp. Zool. 134 1 1957 : 63-90 text-figs. 1-8.
- Cvancara, A. M. Corrections in spelling of two invertebrate fossils from the lower Carboniferous of New South Wales. J. Paleont. 33 1 1959 : 194.
- Davenport, D. & Norris, K. S. Observations on the symbiosis of the sea anemone *Stoichactis* [sic] and the pomacentrid fish, *Amphiprion percula* [sic]. Biol. Bull. Woods Hole 115 (3) 1958 : 397-410 text-fig. 1.
- Dechancé, M. & Dufaure, J.-P. Une nouvelle association entre une Actinie et un Pagure. C.R. Acad. Sci. Paris 249 16 1959 : 1566-1568.
- Deichmann, E. & Bayer, F. M. The Lemon-Colored Plexaurids from the West Indies and Brazil. Breviora No. 115 1959 : 1-12 pls. 1-5.
- Dennert, G. Ein interessantes Hohlthier unserer heimischen Süßwasserfauna: *Craspedacusta sowerbii* Lank. Mikrokosmos 48 3 1959 : 79-83 text-figs. 1-9.
- Destombes, J., Holland, H. & Willefert, S. Sur la présence du Llandovery à faciès schistogréseux dans le Tafilalet (Maroc présaharien). C.R. Acad. Sci. Paris 249 13 1959 : 1119-1121.
- Dittmer, E. Jungtertiäre Ablagerungen im westlichen Schleswig-Holstein. Meyniana 8 1959 : 1-21 text-figs. 1, 2. [Coral list p. 7.]

[**Dobrolyubova**, T. A. Rugosa in Ivanova, E. A., Development of the fauna of the Middle and Upper Carboniferous sea of the western part of the Moscow syncline in connection with its history. Vol. 3. Development of the fauna in connection with conditions of existence.] Trav. Inst. paléont. Acad. Sci. U.R.S.S. 69 1958 : 65-82 pls. 2, 3, 8-10, 13 text-figs. 35-45. [Russian only.]

Dolić, D. see Jovanović, D.

Dufauve, J. P. Une nouvelle Actinie : *Parastephanaux paxi*, gen. nov., sp. nov. Bull. Soc. zool. Fr. 84 1959 : 86-91 text-figs. 1-4.

Dufauve, J.-P. see Dehancé, M.

Eakin, R. E. see Ham, R. G.

Eberhardt, S. see Flügel, E.

Edwards, C. Occurrence of the Chondrophore *Veella veella* (L.) on western Scottish coasts. Glasg. Nat. 18 2 1959 : 78-81.

Eisenack, A. Einige Mitteilungen über Graptolithen. Neues Jb. Geol. Paläont. Abh. 107 1959 : 253-260 pl. 23 text-figs. 1-3.

Engelhardt, W. Limnologische Untersuchungen im Walchensee in den Jahren 1950-58. II. Untersuchungen über die Litoralfauna des Walchensees Oberbayern und ihre Beeinflussung durch den Staubbetrieb. Arch. Fisch.-Wiss. 9 3 1958 : 203-222 text-figs. 1-7. [German with English summary.]

Eremija, M. Paläontologische Neuigkeiten aus Neogenschichten südlich von der Stadt Glinja (Croatien). Ann. géol. Pénin. balk. 26 1959 : 185-193 pls. 1-4. [Serbian with German summary.]

Eymann, H. see Tardent, P.

Faulhaber, I. & **Tardent**, P. Das Verhalten der freien Aminosäuren im Verlauf der normalen und gehemmten Regeneration bei *Tubularia*. Rev. suisse Zool. 66 2 1959 : 295-308 text-figs. 1-3. [German with English summary.]

Fawcett, D. W., **Ito**, S. & **Slaatterback**, D. [B.] The Occurrence of Intercellular Bridges in Groups of Cells Exhibiting Synchronous Differentiation. J. Biophys. & Biochem. Cytol. 5 3 1959 : 453-460 6 pls.

Fawcett, D. W. see Slaatterback, D. B.

Fimiani, M. R. Osservazioni sulla sessualità in *Cerianthus membranaceus* (Gmelin). Pubbl. Staz. zool. Napoli 31 (1) 1959 : 127-138 pl. 4 text-figs. 1, 2. [Italian with German summary.]

Fischer-Piette, E. see Crisp, D. J.

Flügel, E. Die Gattung Actinostroma [sic] Nicholson und ihre Arten (Stromatoporoidea). Ann. naturhist. Mus. Wien 63 1959 : 90-273 pls. 6, 7 text-figs. 1-3. [German with English summary p. 93.]

Flügel, E. & **Eberhardt**, S. Die Hydrozoen der Trias. Neues Jb. Geol. Paläont. Abh. 109 1 1959 : 1-108 pls. 1-3.

Flügel, H. Zur Kenntnis der Typen von *Favistella* (*Dendrostellata*) *trigemma* (Quenstedt 1881) und *Thamophyllum trigeminum* Penneck 1894. N.J. Geol. Paläont. Monats. 1959 3 1959 : 113-120.

[**Fomitchev**, V. D. Permskie Korally Rugosa Dal'nego Vostoka.] Trud. Vses. Nauch.-Issled. Geol. Inst. (VSEGEI) Min. Geol. Moscow 1953 : 1-71 pls. 1-7.

Forrest, H. Taxonomical Studies on the Hydras of North America. VII. Description of *Chlorohydra hadleyi*, new species, with a Key to the North American Species of Hydras. Amer. midl. Nat. 62 2 1959 : 440-448 text-figs. 1-8.

Fox, D. L. & **Hazo**, F. T. Pigments and algal commensalism in the blue oceanic siphonophore *Veella lata*. Proc. int. Congr. Zool. 15 (1958) 1959 : 280-282.

Frey, H. Das Aquarium von A bis Z, 2. Auflage : 1-600 64 pls. (24 coloured) text-figs. Neumann Verlag, Radebeul, 1959. [Hydroidea, pp. 323-324.]

Friel, J. M. Portuguese Man-of-War, *Physalia physalis* : first record on the east coast of Ireland. Irish Nats. J. 13 2 1959 : 43-44.

Fritz, M. A. & **Howell**, B. F. *Cambrotrypa montanensis*, a Middle Cambrian Fossil of possible Coral Affinities. Proc. geol. Assoc. Canada 11 1959 : 89-93 pl. 1.

Fritz, M. A. see Cranswick, J. S.

Fulton, C. Re-examination of an inhibitor of regeneration in *Tubularia* [sic]. Biol. Bull. Woods Hole 116 2 1959 : 232-238.

Furnestin, M.-L. Méduses du plancton marocain. Rev. Trav. Inst. Pêches marit. 23 1 1959 : 105-124 text-figs. 1-6.

Ganapati, P. N. & **Lakshmana Rao**, M. V. Observations on the development of *Scyphistoma* larvae (Coelenterata) from Visakhapatnam harbour. Abstr. Pap. 1st All-Indian Congr. Zool. [4] 1959 : 25.

Ganapati, P. N. & **Subba Rao**, D. V. On the distribution of *Physalia* in Indian waters. Abstr. Pap. 1st All-India Congr. Zool. [4] 1959 : 29.

Géczy, B. Sur les Diploctenium (Anth.) de Sümeg. Acta geol. hung. 6 1-2 1959 : 195-208 pls. 1-4 text-figs. 1-6. [French with German and Russian summaries.]

Germaine, L. A. P. La faune des Lacs, des Étangs et des Marais de l'Europe occidentale. 2me Édition révisée. . . par E. Séguy. Encyclopédie pratique du naturaliste, 20 1957 : i-x, 1-549 : pls. 1-32 (col.) text-figs. 1-280. Paris (Éditions Paul Lechevalier). [Coelenterates pp. 93-98.]

[**Ghekker**, R. F. Vvedenie v paleoekologiyu.] Ghosudarst. Nauch.-Techn. Izdat. Lit. Geol. Ochr. Nedr Moskva 1957 : 1-126 pls. 1-20 text-figs. 1-27. [Russian only.]

Gillett, K. & **McNeill**, F. The Great Barrier Reef and Adjacent Isles, pp. xiv + 1-194 text illust. (some coloured). Coral Press Pty. Ltd., Sydney, 1959.

Glaessner, M. F. The oldest Fossil Faunas of South Australia. Geol. Rundsch. 47 2 1958 : 522-531 text-figs. 1-5.

Glaessner, M. F. (1). New Fossils from the Base of the Cambrian in South Australia. Trans. roy. Soc. S. Austr. 81 1958 : 185-188 pl. 1.

Glaessner, M. F. (2). Precambrian Coelenterata from Australia, Africa and England. Nature Lond. 183 4673 1959 : 1472-1473 text-fig. 1.

Gokar, H. A. F. & **Roushdy**, H. M. The Neuromuscular System of the Xenidiidae (Alcyonaria), I.—Histological. Publ. mar. biol. Sta. Al-Ghardaqa No. 10 1959 : 63-81 text-figs. 1-9.

Gokar, H. A. F. & **Roushdy**, H. M. (1). On the Physiology of the Neuromuscular System of *Heteroxenia* (Alcyonaria). Publ. mar. biol. Sta. Al-Ghardaqa No. 10 1959 : 91-143 text-figs. 1-27.

Goreau, N. I. see Goreau, T. F.

Goreau, T. F. The physiology of skeleton formation in corals. I. A method for measuring the rate of calcium deposition by corals under different conditions. Biol. Bull. Woods Hole 116 1 1959 : 59-75 text-figs. 1-5.

Goreau, T. F. (1). The ecology of Jamaican coral reefs. I. Species composition and zonation. Ecology 40 1 1959 : 67-90 text-figs. 1-21.

Goreau, T. F. (2). Calcification and growth in reef-forming corals. Proc. int. Congr. Zool. 15 (1958) 1959 : 248-249.

Goreau, T. F. (3). Butressed reefs in Jamaica, British West Indies. Proc. int. Congr. Zool. 15 (1958) 1959 : 250.

Goreau, T. F. & Goreau, N. I. The physiology of skeleton formation in corals. II. Calcium deposition by hermatypic corals under various conditions in the reef. Biol. Bull. Woods Hole 117 1 1959 : 239-250 text-figs. 1-3.

Grainger, E. H. The Annual Oceanographic Cycle at Igloodik in the Canadian Arctic. I. The zooplankton and Physical and Chemical Observations. J. Fish. Res. Bd. Can. 16 4 1959 : 453-501 text-figs. 1-12.

Grublé, D. Prilog stratigrafskom poznavanju visnjickih plavij glina. Bull. Serv. géol. Serb. 15 1958 : 111-120. [Serbian with German summary.]

Guest, W. C. The occurrence of the jellyfish *Chirophalus quadrumanus* in Matagorda Bay, Texas. Bull. mar. Sci. Gulf & Caribbean 9 1 1959 : 79-83.

Guiguet, C. J. see Carl, G. C.

Günzl, H. Zur Physiologie der Medusenbildung bei Eirene viridula [sic]. Naturwissenschaften 46 9 1959 : 337.

Gwilliam, G. F. see Light, S. F.

Hadzi, J. *Camella vilas-velibiti* Hadzi 1915 (Hydroidea). Razpr. Slov. Akad. Ljubljana (4) 4 1958 : 149-166. [Serbian with German Zusammenfassung.]

Hadzi, J. (1). Stiri knidariološke študije (Z eno sliko v tekstu). [Vier knidariologische Studien.] Raspr. Slov. Akad. Ljubljana (4) 5 1959 : 45-103 1 text-fig. [Serbian with German Zusammenfassung.]

Halstead, B. W. Dangerous Marine Animals, pp. [xiv] + 1-146 coloured frontispiece text-figs. 1-86. Cornell Maritime Press, Cambridge, Maryland, 1959. [Coelenterates, pp. 32-39.]

Ham, R. G. & Eakin, R. E. Time sequence of certain physiological events during regeneration in hydra [sic]. J. exp. Zool. 139 1 1959 : 33-53 tables.

Ham, R. G. & Eakin, R. E. (1). Loss of regenerative capacity in hydra [sic] treated with lipoic acid. J. exp. Zool. 139 1 1959 : 55-68.

Hamada, T. Corallum Growth of the Halysitidae. J. Fac. Sci. Univ. Tokyo Geol. 2 11 3 1959 : 273-289 pls. 12-15 text-figs. 1-9.

Hamada, T. (1). On the Taxonomic Position of *Favosites hidensis* and its Devonian Age. Jap. J. Geol. Geogr. 30 1959 : 201-213 pl. 16.

Hand, C. see Light, S. F.

Harvey, E. N. Edwin Grant Conklin. Nat. Acad. Sci. U.S.A. Biogr. Mem. 31 1958 : 54-91 portrait.

Hazo, F. T. see Fox, D. L.

Hiatt, R. W. Factors Influencing the Distribution of Corals on the Reefs of Arno Atoll, Marshall Islands. Proc. 8th. Pac. Sci. Congr. 3A 1957 : 929-970 text-figs. 1-12.

Hill, D. Some Ordovician Corals From New Mexico, Arizona, and Texas. New Mexico Bureau Mines Min. Resources Bull. 64 1959 : 1-25 pls. 1, 2.

Hill, D. (1). Distribution and Sequence of Silurian Coral Faunas. J. Proc. roy. Soc. N.S.W. 92 4 (for 1958) 1959 : 151-173.

Hill, D. see Thomas, G. A.

Hirai, E. On the developmental cycles of *Aurelia aurita* and *Dactylopora pacifica*. Bull. mar. biol. Sta. Asamushi 9 2 1958 : 81.

Holland, H. see Destombes, J.

Horný, R. Zóna *Akidograptus ascensus* v jizním křídle barrandienského Siluru. Vestn. geol. Úst. čsl. 31 2 1956 : 62-69. [Czech with Russian and English summaries.]

Horný, R. (1). Nové poznatky o biostratigrafii skutečno-hilinského siluru. Vestn. geol. Úst. čsl. 31 3 1956 : 128-131 pls. 1, 2. [Czech with Russian and English summaries.]

Horridge, G. A. The nerves and muscles of Medusae. VI. The rhythm. J. exp. Biol. 36 1 1959 : 72-91 text-figs. 1-9.

Howe, D. C. A Rare Hydromedusa. Nature Lond. 184 4703 1959 : 1963.

Howell, B. F. see Fritz, M. A.

Hsü, S. C. A New Graptolite Fauna from the Lower Ordovician Shale of Tsaidam, Chinghai Province. Acta palaeont. Sinica 7 3 1959 : 161-191 pls. 1-5 text-figs. 1-4. [Chinese with English translation. One new genus is ascribed to A. C. Mu MS.]

Hsü, S. C. (1). A Newly Discovered *Climacograptus* with a Particular Basal Appendage. Acta palaeont. Sinica 7 5 1959 : 346-352 pl. 1. [Chinese with English translation.]

Hudson, R. G. S. *Steinerina* Hudson, nom. nov. Geol. Mag. 93 6 1956 : 518.

Hudson, R. G. S. (1). A revision of the Jurassic stromatoporeids *Actinostromina*, *Astrotylopsis*, and *Trupestromaria* Germovšek. Palaeont. 2 1 1959 : 28-38 pls. 4-6.

Hudson, R. G. S. (2). The Stromatoporeid genus *Milleporella* Deninger. Geol. Mag. 96 4 1959 : 311-317 pl. 7.

Hudson, R. G. S. & Chatton, M. The Musandam Limestone (Jurassic to Cretaceous) of Oman, Arabia. Notes Mém. Moyen-Orient 7 1959 : 69-93 text-figs. 1-5.

Hyman, L. H. Charles Manning Child. Nat. Acad. Sci. U.S.A. Biogr. Mem. 30 1957 : 73-103 portrait.

Igō, H. Note on Some Permian Corals from Fukui, Hida Massif, Central Japan. Trans. Proc. palaeont. Soc. Japan N.S. 34 1959 : 79-85 pl. 8 text-fig. 1.

Igō, H. (1). Stratigraphic Position of the Corals in the Ichinotani Formation (Carboniferous)—Reply to Katō's Opinion. J. geol. Soc. Japan 65 768 1959 : 559-560. [Japanese only.]

Ito, S. see Fawcett, D. W.

[Ivaniya, V. A. Verkhnedevonske korally Rugosa gilyubokinskogo izvestnyaka c Solomino (Kyubass).] Uchen. Zapisk. Tomsk. Ghosudarst. Univ. No. 18 1952 : 125-164 pls. 1-8. [Russian only.]

[Ivaniya, V. A. (1). K voprosu o vozraste verkhnei pachki zarubinskhogo izvestnyaka.] Trud. Tomsk. Ghosudarst. Univ. 124 1953 : 5-18 pls. 1-7. [Russian only.]

[Ivaniya, V. A. (2). Materiali k izucheniyu nishnefranskogo kompleksa korallorv Rugosa Kuzbassa.] Trud. Tomsk. Ghosudarst. Univ. 124 1953 : 19-50 pls. 1-12. [Russian only. Includes spp. n. referred to Kuzn. (sic) MS. and E. Bulvanker MS.]

[Ivaniya, V. A. (3). Biostratigraficheskoe raschlenenie devona Kuzbassa po korallam Rugosa.] Uchen. Zapisk. Tomsk. Ghosudarst. Univ. No. 32 1958 : 194-204. [Russian only. Nomm. nud.]

[Ivaniya, V. A. (4). Ocnovnye etapy razvitiya Rugosa v devone sayano-altaiskoi gornoi sistemy i ix fatsialnaya priyurochennost.] Uchen. Zapisk. Tomsk. Ghosudarst. Univ. 34 1958 : 239-246. [Russian only. Nomm. nud.]

[Ivanova, E. A. Development of the fauna of the Middle and Upper Carboniferous Sea of the western part of the Moscow syncline in connection with its history. Vol. 3. Development of the fauna in connection with conditions of existence.] Trav. Inst. paléont. Acad. Sci. U.R.S.S. 69 1958 : 1-303 frontispiece pls. 1-21 text-figs. 1-77. [Russian only.]

[Ivanova, E. A., Soskhina, E. D., Astrova, G. G. & Ivanova, V. A. Fauna Ordovika i Ghotlandiya Nizhnego Tscheniya R. Podkammenoi Tunghuski, ee ekologiya i stratigraficheskoe znachenie.] Trav. Inst. paléont. Acad. Sci. U.R.S.S. 56 1955 : 93-196 pls. 1-23 text-figs. 1-22. [Corals, pp. 118-128, 182-184. Russian only.]

Ivanova, V. A. see Ivanova, E. A.

Jaeger, H. Graptolithen und Stratigraphie des jüngsten Thüringer Silurs. Abh. dtsh. Akad. Wiss. Kl. Chem. Geol. Biol. 1959 2 1959 : 1-197 pls. 1-14 text-figs. 1-27.

Jaeger, H. (1). Graptolithen des jüngeren Gotlandiums von Thüringen. Wiss. Z. Humboldt-Univ. Berlin. Math.-Nat. R. 8 1 1959 : 136-137.

Jägersten, G. Further Remarks on the Early Phylogeny of the Metazoa. Zool. Bidr. Uppsala 33 1959 : 79-108 text-figs. 1-4.

Johnson, F. H. see Chang, J. J.

Johnson, G. A. L. The Carboniferous Stratigraphy of the Roman Wall district in western Northumberland. Proc. York. geol. Soc. 32 1 1959 : 83-130 pl. 2 text-figs. 1-11.

Jones, C. R. Graptolites recorded from Malaya. Nature Lond. 183 4656 1959 : 231-232.

Jones, W. C. see Knight-Jones, E. W.

Jovanović, D. & Dolić, D. O fosilonosnim lokalnostima Srednjeg i gornjeg miocena u široj okolini Arandelovca. Bull. Serv. géol. Serb. 16 1958 : 87-96 pls. 1-5 text-fig. 1. [Serbian with German summary.]

Kaiser, E. & Michl, H. Die Biochemie der tierischen Gifte : pp. i-viii, 1-258 23 text-figs. Franz Deuticke, Wien, 1958.

Kakimi, T. see Minato, M.

[Kashirtzev, A. S. Field-atlas of the fauna of the Permian deposits of the north-east of the U.S.S.R.] Akad. Nauk S.S.S.R. Yakut. Fil. Sibirsk. Otdel. AN S.S.S.R. 1959 : 1-85 pls. 1-44 text-figs. 1-6. [Russian only. Corals, pp. 19-23.]

Kato, M. Some Carboniferous Rugose Corals from the Ichinotani Formation, Japan. J. Fac. Sci. Hokkaido Univ. Ser. 4 Geol. Min. 10 2 1959 : 263-287 pls. 1-3 text-figs. 1-7.

Kato, M. (1). On some Carboniferous Corals from the Kitakami Mountains. Trans. Proc. palaeont. Soc. Japan n.s. 33 1959 : 33-43 text-figs. 1-8.

Kato, M. (2). [Stratigraphic Position of the Corals in the Ichinotani Formation.] Reply to H. Igō's discussion. J. geol. Soc. Japan 65 768 1959 : 561-562. [Japanese only.]

Kato, M. see Minato, M.

Kaufman, S. Z. Regeneration in the scyphistoma of the scyphozoon *Cyanea capillata* and its relation to the stage of development. Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci. 114 1-6 1957 : 523-525 text-fig. 1.

Kawano, M. Two New Permian Corals from Yamaguchi Prefecture. Trans. Proc. palaeont. Soc. Japan N.S. 36 1959 : 181-184 pl. 20.

Kiknadze, I. I. A cytochemical study of ribonucleic acid in the developing ova of some invertebrates. Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci. 112 1-6 1957 : 18-22 text-figs. 1-13.

Kingston, C. W. see Southcott, R. V.

Kiseleva, M. I. see Zhirmunsky, A. V.

Knight-Jones, E. W. & Jones, W. C. The Fauna of Rocks at Various Depths off Bardsey. 1. Sponges, Coelenterates and Bryozoans. Bardsey Observ. Rep. 1955 1956 : 23-30.

Kolenkine, X. Associations tissulaires interspécifiques chez l'Hydre d'eau douce. Bull. Soc. sci. Bretagne 34 1959 : 316-321.

Kolosváry, G. Über die Septenstruktur einiger Madreporarien. Acta biol. Szeged. N.S. 5 1-2 1959 : 109-115 text-figs. 1-22.

Kolosváry, G. (1). Über die Karbon-Fauna des Szendrőer-Gebirges. Acta biol. Szeged. N.S. 5 1-2 1959 : 117-123 text-figs. 1-7.

Kolosváry, G. (2). Korallen aus der Unterkreide des Mecsek-Gebirges. Acta biol. Szeged. N.S. 5 1-2 1959 : 125-128 text-figs. 1-8.

Kolosváry, G. (3). Enumeration des coraux mésozoïques de la Hongrie et de la Transylvanie. Bull. mens. Soc. linn. Lyon 28 6 1959 : 194-196.

Konishi, K. Identity of Algal *Tubiphytes* Maslov, 1956, and Hydrozoan Genus *Nigriporella* Rigby, 1958. Trans. palaeont. Soc. Japan N.S. 35 1959 : 142 text-fig. 1.

Korn, H. Zum Nervensystem der Ctenophore *Planorbachia pileus* O. Müller. Zool. Anz. 163 11-12 1959 : 351-359 text-figs. 1-13.

Koshoyants, Ch. S. A comparative-physiological analysis of the periodical activity of certain invertebrates. Proc. int. Congr. Zool. 15 (1958) 1959 : 841-844.

Kozłowski, R. Les Hydroids ordoviciens à squelette chitineux. Acta palaeont. polon. 4 3 1959 : 209-271 text-figs. 1-31. [French with Polish and Russian summaries.]

- Kramp, P. L.** Hydromedusae in the Indian Museum. Rec. Indian Mus. **53** 3-4 (for 1955) 1958 : 339-376 text-figs. 1-5.
- Kramp, P. L.** (1). The hydromedusae of the Atlantic Ocean and adjacent waters. Dana Rep. **46** 1959 : 1-283 pls. 1, 2 text-figs. 1-335.
- Kramp, P. L.** (2). Medusae mainly from the west coast of Africa. Rés. Sci. Expéd. Océanogr. Belge. Eau. Cotières Afr. Atlant. Sud **3** 6 1959 : 1-33 text-figs. 1-5.
- Kramp, P. L.** (3). Some new and little-known Indo-Pacific Medusae. Vidensk. Medd. Dansk naturh. Foren. Kbh. **121** 1959 : 223-259 text-figs. 1-19.
- Kramp, P. L.** (4). *Stephanoscyphus* (Scyphozoa). Galathea Rep. **1** 1959 : 173-187 pl. 1 text-figs. 1-12.
- Krinsley, D. N.** see Bieri, R.
- Kulikova, V. N.** A case of hermaphroditism in the gonad of the medusa *Rathkea octopunctata*. Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci. **114** 1-6 1957 : 624-625 text-fig. 1.
- Lafuste, J.** Murailles à parois lamellaires chez certains Tabulés. C.R. Acad. Sci. Paris **248** 16 1959 : 2373-2375 text-figs. 1-2.
- Lakshmana Rao, M. V.** see Ganapati, P. N.
- Lane, C. E.** Cobra of the Sea. Sea Frontiers **5** 1 1959 : 7-13 4 figs.
- Lang, W. D.** Invertebrates other than arthropods. Proc. Dorset nat. Hist. Soc. **80** 1959 : 23-24.
- Langenheim, R. L. & McCutcheon, V. A.** *Bayhaim merriamorum*, a new Permian tabulate coral from California. J. Paleont. **33** 1 1959 : 99-102 pl. 19.
- Lecompte, M.** Le phénomène calcaire dévionien dans le géosynclinal belgo-rhenan. Sa genèse, ses enseignements, ses problèmes. Rev. Quest. sci. **1959** : 321-354 pls. 1, 2.
- Leghissa, S. & Mazzi, S.** Contributo ad una migliore conoscenza sulla struttura e composizione delle mesoderme negli Antozoi. Riv. Biol. Perugia **51** 3 1959 : 293-325 text-figs. 1-11. [Italian with English summary.]
- Le Maitre, D.** Remarques sur trois genres de Tabulés : *Holacanthopora*, *Pleurodictyum* [sic] et *Roemeria*. C.R. somm. Soc. géol. Fr. **1959** 6 1959 : 147-148.
- Le Maitre, D.** (1). Espèces nouvelles de *Pleurodictyum* et leur microstructure. C.R. Acad. Sci. Paris **248** 16 1959 : 2376-2378.
- Lenhoff, H. M. & Bovaird, J.** Requirement of Bound Calcium for the Action of Surface Chemoreceptors. Science N.Y. **130** 3387 1959 : 1474-1476.
- Lenhoff, H. M. & Bovaird, J.** (1). A quantitative chemical assay for the migration of the *Hydra cnidoblast* [sic]. [Abstract.] Anat. Rec. **134** 3 1959 : 598.
- Lenhoff, H. M. & Bovaird, J.** (2). Requirement of extracellular sodium ion by *Hydra littoralis* for growth and cnidoblast migration. [Abstract.] Anat. Rec. **134** 3 1959 : 598-599.
- Lenhoff, H. M. & Loomis, W. F.** Environmental factors controlling respiration in hydra [sic]. J. exp. Zool. **134** 1 1957 : 171-181 7 figs.
- Lenhoff, H. M. & Schneiderman, H. A.** The chemical control of feeding in the Portuguese Man-of-War, *Physalia physalis* L. and its bearing on the evolution of the Cnidaria. Biol. Bull. Woods Hole **116** 3 1959 : 452-460 text-figs. 1-8.
- Lenhoff, H. M. & Zimmermann, K. F.** Biochemical studies of symbiosis in *Chlorohydra viridissima*. [Abstract.] Anat. Rec. **134** 3 1959 : 599.
- Lewowicki, S.** Fauna wapieni klimeniowych z Dzikowca Kłodzkiego. Bull. Serv. géol. Pologne **146** 1959 : 73-118 pls. 1, 2 text-figs. 1, 2. [Polish with Russian and English summaries. Coral, p. 86.]
- Light, S. F.** Intertidal invertebrates of the Central California Coast, 2nd Ed. (revised by Smith, R. I., Pitelka, F. A., Abbott, D. P. & Weesner, F. M.) : i-xiv, 1-446 text-figs. 1-138. Univ. Calif. Press, Berkeley, 1954. [Some sections by R. Bolin, G. F. Gwilliam, and C. Hand. Coelenterates pp. 21-48.]
- Logvinenko, B. M.** On finding the medusa Blackfordia virginica [sic] in the Caspian Sea. Zool. Zh. **38** 8 1959 : 1257-1258. [Russian with English summary.]
- Loomis, W. F.** Control of Sexual Differentiation in *Hydra* by pCO_2 . Ann. N.Y. Acad. Sci. **77** 2 1959 : 73-86 text-figs. 1-6.
- Loomis, W. F.** see Lenhoff, H. M.
- Lynch, W. F.** Factors influencing metamorphosis of larvae of some of the sessile organisms. Proc. int. Congr. Zool. **15** (1958) 1959 : 239-241.
- Lytle, C. F.** Interactions between asexual reproduction and sexual differentiation in *Craspedacusta*. [Abstract.] Anat. Rec. **132** 3 1959 : 471.
- Ma, T. Y. H.** Effect of water temperature on growth rate of reef corals. Oceanogr. sinica Spec. Vol. **1** 1959 : i-v, 1-116 pls. A, 1-320 text-figs. 1-7b. [A sp. n. is referred to Ma & Kawaguti.]
- Ma, T. Y. H.** (1). The relation of growth rate of reef corals to surface sea water temperature as a basis for the study of causes of diastrophisms initiating evolution. Proc. int. Congr. Zool. **15** (1958) 1959 : 986-987.
- Maaden, H. van der.** Notes on *Aurelia aurita* (L.) Lamarck and *Cassiopea andromeda* Eschscholtz from the Gulf of Aqaba. Bull. Sea Fish. Res. Sta. Israel **20** 1959 : 5-10 text-fig. 1.
- Macan, T. T.** A Guide to Freshwater Invertebrate Animals : pp. x + 1-118 text-figs. 1-202. Longmans, London, 1959. [Coelenterata, pp. 5-7.]
- McCutcheon, V. A.** see Langenheim, R. L.
- McIntyre, A. D.** The Ecology of Scottish Inshore Fishing Grounds. I. The Bottom Fauna of East Coast Grounds. Mar. Res. No. 1 1958 : 1-24 text-figs. 1-3.
- Mackie, G. O.** The Evolution of the Chondrophora (Siphonophora-Disconthae) : New Evidence from Behavioural Studies. Trans. roy. Soc. Can. (3) **53** 5 1959 : 7-20 pl. 1 text-figs. 1-3.
- McLaren, D. J.** A Revision of the Devonian Coral Genus *Synaptophyllum* Simpson. Bull. Geol. Surv. Can. **48** 1959 : 15-33 pls. 7-10 text-figs. 1-8.
- McLaren, D. J.** (1). The Role of Fossils in Defining Rock Units with Examples from the Devonian of Western and Arctic Canada. Amer. J. Sci. **257** 1959 : 734-751 text-figs. 1-8.
- McLaughlin, J. J. A. & Zahl, P. A.** Axenic Zooxanthellae from Various Invertebrate Hosts. Ann. N.Y. Acad. Sci. **77** 2 1959 : 55-72 text-fig. 1.
- McLaughlin, J. J. A.** see Zahl, P. A.
- McNeill, F.** see Gillett, K.

- Mankowski, W.** Macroplankton investigations of the Southern Baltic in the period 1952-1955. *Prace morsk. Inst. Ryback. Gdyn.* **10A** 1959 : 69-129 4 maps. [Polish with Russian and English summaries.]
- Marcus, E.** On the Evolution of the Animal Phyla. *Q. Rev. Biol.* **33** 1 1958 : 24-58 text-fig. 1. [Coelenterata p. 26.]
- Mărgineanu, C. & Petran, A.** Cercetări asupra zooplanctonului marin în regiunea sudică a litoralului românesc al Mării Negre. *Bul. Inst. Cercet. Pisc. Roman.* **18** (3) 1959 : 5-23 4 text-figs. [Rumanian with Russian and French summaries.]
- Markowski, S.** The cooling water of power stations : a new factor in the environment of marine and freshwater invertebrates. *J. Anim. Ecol.* **28** (2) 1959 : 243-258 text-figs. 1, 2.
- Mazzi, S.** see Leghissa, S.
- Michl, H.** see Kaiser, E.
- Middleton, G. V.** Devonian tetracorals from South Devonshire, England. *J. Paleont.* **33** 1 1959 : 138-160 pl. 27 text-figs. 1-6.
- Millard, N. A. H.** Hydrozoa from the coasts of Natal and Portuguese East Africa. Part II : Gymnoblastera. *Ann. S. Afr. Mus.* **44** 7 1959 : 297-313 text-figs. 1-4.
- Millard, N. A. H. (1).** Hydrozoa from ships' hulls and experimental plates in Cape Town Docks. *Ann. S. Afr. Mus.* **45** 1 1959 : 239-256 text-figs. 1-3.
- Millard, Y.** Sur la présence d'assises carbonifères dans le massif paléozoïque intenu du Rif. *C.R. Acad. Sci. Paris* **249** 17 1959 : 1688-1690.
- Minato, M., Takeda, H., Kakimi, T. & Kato, M.** Zur Biostratigraphie der Onimaru- und Nagaiwa-Serie. *J. Fac. Sci. Hokkaido Univ. Ser. 4 Geol. Min.* **10** 2 1959 : 337-347 text-figs. 1, 2.
- [Miroshnikov, L. D.]** Fossil Scyphomedusae from the Cambrian of Siberia. *Priroda* **11** 1959 : 109-110 1 text-fig. [Russian only.]
- Mitrović-Petrović, J.** Contribution à la connaissance de la faune Crétacée Inférieure des environs de Krivi Vir (Serbie Orientale). *Ann. géol. Pén. balkan.* **25** 1958 : 43-60 pls. 1-3. [Serbian with French résumé.]
- Mookerjee, S. & Sinha, A.** Regionality in the inductive power of Hydra [sic] tentacle. *J. exp. Zool.* **141** 2 1959 : 379-388 pl. 1 text-figs. 1, 2.
- Moore, D. R.** Notes on Blanquilla Reef, the Most Northerly Coral Formation in the Western Gulf of Mexico. *Publ. Inst. mar. Sci. Univ. Tex.* **5** 1958 : 151-155. [List p. 54.]
- Morial, T.** see Onuki, Y.
- Morrill, J. B.** Antigens in *Tubularia crocea*. [Abstract.] *Anat. Rec.* **132** 3 1959 : 479-480.
- Morrill, J. B. (1).** Antigenic differences between stem and hydranth in *Tubularia*. *Biol. Bull. Woods Hole* **117** 1 1959 : 319-326 text-fig. 1.
- Mu, A.-C.** see Hsü, S. C.
- Müller, A. H.** Lehrbuch der Paläozoologie. Band II. Invertebraten. Teil I. Protozoa-Mollusca I : xv + 1-566 text-figs. 1-652. Gustav Fischer Verlag, Jena, 1958. [Coelenterata, pp. 151-260.]
- Müller, I.** see Pax, F.
- Muramatsu, S.** see Uchida, T.
- Nagabhushanam, A. K.** Feeding of a Ctenophore, *Botriopsis Infundibulum* (O. F. Müller). *Nature Lond.* **184** 4689 1959 : 829.
- Nagao, Z.** see Uchida, T.
- Nair, K. K. & Sane, S. R.** Histochemical demonstration of alkaline phosphatase activity in the body wall of Hydra [sic] sp. *J. biol. Sci. Bombay* **1** 2 (for 1958) 1959 : 99-100 1 pl.
- [Naumov, D. V.]** Tip Kishetsnopolostnie—Coelenterata, Ushakov, P. V. & others in Atlas Bespozvonotsnix dal'nevostotsnix morei S.S.S.R. [Acad. Nauk S.S.S.R. Zool. Inst. Moscow & Leningrad 1955 : 51-68 pls. 7-11. [Russian only.]
- Naumov, D. V. (1).** The life history of the Hydromedusa *Cladonema pacifica* Naumov. *Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci.* **112** 1-6 1957 : 194-195 text-fig. 1.
- Naumov, D. V. (2).** Morphology and systematic position of *Monobrachium parasitum* Mereschk (Hydrozoa). *Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci.* **113** 1-6 1957 : 448-450 text-figs. 1, 2.
- Naumov, D. V. (3).** Generic classification of poly-poid generations of Coronomedusae. *Dokl. Akad. Nauk S.S.S.R. Biol. Sci. (Transl.)* **126** 1-6 1959 : 582-584 text-fig. 1.
- [Naumov, D. V. (4).]** O paralelnosti putei evolyutsii v raznich klassach metagenetitskich kishetsnopolostnich. *Dokl. Akad. Nauk S.S.S.R.* **127** 6 1959 : 1304-1307.
- Naylor, E.** The fauna of a warm dock. *Proc. int. Congr. Zool.* **15** (1958) 1959 : 259-262.
- Nelson, S. J.** Evolution of the Mississippian *Lithostrotion mutabile*-*Lithostrotion whitleyi* Coral Group of the Southern Canadian Rockies. *Min. Proc. roy. Soc. Can.* (3) **53** App. C 1959 : 19-20.
- Nelson, S. J. (1).** Evolution of the Mississippian *Lithostrotion mutabile*-*Lithostrotion whitleyi* Coral Group of the Southern Canadian Rockies. *Trans. roy. Soc. Can.* (3) **53** 4 1959 : 21-26 text-figs. 1, 2.
- Nemzeno, F.** Systematic Studies on Philippine Shallow Water Scleractinians. II. Suborder Faviida. *Natural appl. sci. Bull.* **16** 1-4 1959 : 73-135 pls. 1-24.
- Newell, N. D.** Questions of the Coral Reefs. *Nat. Hist. N.Y.* **68** 3 1959 : 118-131 19 text-figs.
- Newell, N. D. (1).** The Coral Reefs. Part II. Biology of the Corals. *Nat. Hist. N.Y.* **68** 4 1959 : 226-235 13 text-figs.
- Newell, N. D. (2).** American coral seas. *Proc. int. Congr. Zool.* **15** (1958) 1959 : 251-252.
- Nicol, J. A. C.** Digestion in sea anemones. *J. mar. biol. Ass. U.K.* **38** 3 1959 : 469-476 pl. 1 text-fig. 1.
- Nikolov, I.** see Spasov, C.
- Norris, K. S.** see Davenport, D.
- North, W. J.** Sensitivity to Light in the Sea Anemone *Metridium senile* (L.). II. Studies of Reaction Time Variability and the Effects of Changes in Light Intensity and Temperature. *J. gen. Physiol.* **40** 5 1957 : 715-733 tables. [Reprinted in Contr. Scripps Inst. Oceanogr. 1957 1958 : 237-255.]
- Onuki, Y.** Discovery of Hexacorals from the Shiriya District, Aomori Prefecture, Northeast Japan. *J. geol. Soc. Japan* **65** 763 1959 : 248 2 text-figs. [Japanese only.]

- Onuki, Y. & Moriai, T.** Newly Discovered Onimaru Formation in the Southern Part of Kamaishi Mine, Kitakami Massif. *J. geol. Soc. Japan* **65** 763 1959 : 249-250. [Japanese only.]
- Pactzold, D. & Tilgner, S.** Beiträge zur mikroskopisch-technischen Behandlung von Standardobjekten im Zoologischen Praktikum. I. Hydra (sic). *Wiss. Z. M. Luther Univ. Halle-Wittenberg Math.-Nat. R.* **8** 1 1959 : 75-81 text-figs. 1-8.
- Parentan, P.** Formazioni coralligene mediterranee e loro biologia. *Boll. Zool.* **24** 2 1957 : 287-312 text-figs. 1-4. [Italian with French résumé.]
- Parentan, P. (1).** Biocenologia bentonica : il fondo ad Ascidie. *Thalassia jonica* **2** 1959 : 15-45 text-figs. 1-4.
- Park, H. D.** Sexual cycles in *Hydra*. [Abstract.] *Anat. Rec.* **134** 3 1959 : 623.
- Parker, R. H.** Macro-Invertebrate Assemblages of Central Texas Coastal Bays and Laguna Madre. *Bull. Amer. Ass. Petrol. Geol.* **43** 9 1959 : 2100-2166 pls. 1-6 text-figs. 1-32.
- Passano, L. M.** Intermittent conduction in scyphozoan nerve nets. [Abstract.] *Anat. Rec.* **132** 3 1959 : 486.
- Pax, F.** *Actinothoe anguicoma* (Price) als akzidenteller Epök der Nordseekrabbe. *Aquar. Terrar.-Zeit. Jahrg.* **10** 2 1957 : 43 text-fig.
- Pax, F. & Müller, I.** Die Qualle des Siebenbirges. *Deckeniana Beih.* No. 7 1959 : 57-58 pl. 3.
- Pax, F. & Müller, I. (1).** The role of the Wrocław Zoological Institute and Museum in the study of the fauna of *Anthozoa* in the Adriatic Sea. [Polish with English summary.] *Przegl. zool.* **3** 1 1959 : 44-53 text-figs. 1-6.
- Paxman, P. J.** Coelenterata. *Rep. Oundle Sch. nat. Hist. Soc.* **1958** (1959) : 23-28 2 text-figs.
- Pennycuik, P. R.** Faunistic Records from Queensland. Part V.—Marine and Brackish Water Hydroids. *Univ. Qd. Pap. (Zool.)* **1** (6) 1959 : 141-210 pls. 1-6.
- Petran, A.** see Mărgineanu, C.
- Pitelka, F. A.** see Light, S. F.
- Pokorný, V.** Grundzüge der Zoologischen Mikropläontologie. Band 2 : vii + 1-453-[455] text-figs. 550-1077. Berlin **1958**. [Coelenterata pp. 25-29.]
- Prevorsek, M.** see Tixier-Durivault, A.
- Prevot, E.** Morphologie et évolution des structures tentaculaires chez les hydriaires *Gymnoblastes Capitata*. *Rec. Trav. Sta. mar. Endoume* No. 29 1959 : 91-126 pls. 1-6 text-figs. 1-3.
- Prock, P. B.** see Welsh, J. H.
- Pulley, J. M.** Corals from the Merlinoigh Sandstone of the Carnarvon Basin, Western Australia. *Rep. Aust. Bur. Min. Res. Geol. Geophys.* **38** 1959 : 113-118 1 pl.
- Rae, B. B.** The Food and Feeding Habits of the Lemon Sole. *Mar. Res. No.* 3 1956 : 1-32 text-figs. 1-5.
- Ralph, P. M.** Notes on the species of the pteromedusan genus *Tetraplatia* Busch, 1851. *J. mar. Biol. Ass. U.K.* **38** 2 1959 : 369-379 text-figs. 1-3.
- Ralph, P. M. (1).** The status and affinities of the anthomedusan *Paragotaea bathybia* Kramp, 1942. *Proc. zool. Soc. Lond.* **133** 2 1959 : 171-177 1 text-fig.
- Ramovš, A.** Die Entwicklung des Oberpermes im Bergland von Škofja Loka und Polhov Gradec (W. Slovenien, NW Jugoslawien). *Razpr. Slov. Akad. Ljubljana* (4) **4** 1958 : 451-622 pls. 1-10 text-figs. 1, 2 4 maps. [Serbian with German Zusammenfassung. Coral p. 482.]
- Ranson, G.** Observations sur les Facteurs Biologiques de la Dissolution du Calcaire D'origine Récifale dans les Tuamotu. *Proc. 8th Pac. Sci. Congr.* **3A** 1957 : 979-988. [French with English summary.]
- Ranson, G. (1).** Observations sur les Iles Basses des Tuamotu (Océanie Française). *Proc. 8th Pac. Sci. Congr.* **3A** 1957 : 989-1008. [French with English summary.]
- Řehoř, F. & Řehořová, M.** Korallenfunde im produktiven Namur des Ostrava-Karíná (Ostrau-Karwiner) Reviere. *Vest. Úst. Geol.* **34** 4 1959 : 308-310 pl. 1. [Czech with German summary.]
- Řehořová, M.** see Řehoř, F.
- Reis, R. H.** Spontaneous change of form in individual polyps of three clones of *Pelmatohydra oligactis*. *Proc. int. Congr. Zool.* **15** (1958) 1959 : 844.
- Riedl, R.** Die Hydroiden des Golfes von Neapel und ihr Anteil an der Fauna unterseeischen Höhlen. *Pubbl. Staz. zool. Napoli* **30** Suppl. 1959 : 591-755 pls. 1-3 text-figs. 1-15. [German with Italian summary.]
- Rigby, J. K.** Some Ordovician Graptolite Localities in Western Utah. *Proc. Utah Acad. Sci.* **35** 1958 : 175.
- Roche, G.** Passengers on the Gulf Stream. *Irish Nats.' J.* **13** 4 1959 : 101-102.
- Roche, J.** On Some Aspects of Iodine Biochemistry in Marine Animals. *Pubbl. Staz. zool. Napoli* **31** Suppl. 1959 : 176-189. [English with Italian summary.]
- Rodriguez, G.** The Marine communities of Margarita Island, Venezuela. *Bull. mar. Sci. Gulf & Caribbean* **9** 3 1959 : 237-280 text-figs. 1-26.
- Ross, D. M.** The Sea Anemone (*Calliactis parasitica*) and the Hermit Crab (*Eupagurus bernhardus*). *Nature Lond.* **184** 4693 1959 : 1161-1162.
- Rossi, L.** Gorgonarii americani raccolti dal Dr. E. Festa. *Boll. Ist. Mus. Zool. Univ. Torino* **4** 1953-54 [1955] : 19-37 pl. 1 text-figs. 1-10.
- Rossi, L. (1).** Variabilità e differenziazione nei Madreporarii del Gen. *Fungia*. *Boll. Ist. Mus. Zool. Univ. Torino* **5** 1955-56 [1957] : 45-51.
- Rossi, L. (2).** Catalogo dei tipi di Gorgonarii esistenti nel Museo Zoologico di Torino. *Boll. Ist. Mus. Zool. Univ. Torino* **5** 1955-56 [1957] : 193-199.
- Rossi, L. (3).** Primo rinvenimento di *Gerardia savaglia* (Bert.) (Zoantharia) nei Mari Italiani (Golfo di Genova). *Doriana* **2** 85 1958 : 1-8 text-figs. 1-3. [Italian with English summary.]
- Rossi, L. (4).** Madreporarii raccolti dalla N.R.P. "Faial" durante la campagna 1957 presso le coste del Portogallo. (Nota preliminare). *Doriana* **2** 86 1958 : 1-9. [Italian with English summary.]
- Rossi, L. (5).** Contributo alla studio della fauna di profondità vivente presso la Riviera Ligure di Levante. *Doriana* **2** 92 1958 : 1-13 text-figs. 1, 2. [Italian with English summary.]
- Roushdy, H. M.** see Gokar, H. A. F.
- Russell, F. S.** Some observations on the scyphomedusa *Atolla*. *J. mar. biol. Ass. U.K.* **38** 1 1959 : 33-40 text-figs. 1-3.

- Russell, F. S. (1).** A Viviparous Deep-Sea Jellyfish. Nature Lond. **184** 4698 1959: 1527-1529 text-figs. 1, 2.
- Sane, S. R.** see Nair, K. K.
- Scheffer, V. B.** Invertebrates and fishes collected in the Aleutians, 1936-38. N. Amer. Fauna No. 61 1959: 365-406 text-figs. 1-26. (Coelenterates, pp. 370-371.)
- Schindewolf, O. H.** Würmer und Korallen als Synöken. Zur Kenntnis der Systeme *Aspidosiphon/Heteropsammia* und *Hicetes/Pleurodictyum*. Abh. mat.-nat. Kl. Akad. Wiss. Mainz **1958** 6 1959: 259 (1)-328 (70) pls. 1-14 text-figs. 1-13.
- Schlieper, C.** New observations on the physiology of ciliated cells. Proc. int. Congr. Zool. **15** (1958) 1959: 542-547 text-figs. 1-4.
- Schneiderman, H. A.** see Lenhoff, H. M.
- Schouppé, A. v. & Stacul, P.** Säulenlose Pterocoralia aus dem Perm von Indonesisch Timor (mit Ausnahme der Polycoridae). Eine morphogenetische und taxonomische Untersuchung. Palaeontographica Suppl. **4** 5 4 1959: 197-359 pls. 6-10 text-figs. 1-41.
- Schouppé, A. v. & Stacul, P. (1).** Die Fossile der Pterocoralia, ihre morphogenetische und taxonomische Bedeutung. Neues Jb. Geol. Paläont. Abh. **108** 1 1959: 21-46 pl. 4 text-figs. 1-9.
- Séguy, E.** see Germaine, L.
- Seno, J.** The life of the Antarctic Ocean. 1. The plankton in the Antarctic Ocean. J. Tokyo Univ. Fish. (Spec. Edit.) **1** 4 1958: 313-319. [Japanese with English abstract.]
- Silva, G. H. da.** Fósseis do Miocénico marinho da Ilha de Porto-Santo. Mem. Mus. Min. Geol. Univ. Coimbra **48** 1959: 1-22 pls. 1-10. [Corals, pp. 7, 8.]
- Simpson, J. W., Allen, K. & Awapara, J.** Free amino acids in some aquatic invertebrates. Biol. Bull. Woods Hole **117** 1 1959: 371-381 text-figs. 1-6.
- Sinha, A.** see Mookerjee, S.
- Skerman, T. M.** Marine Fouling at the Port of Auckland. N.Z. J. Sci. **2** 1 1959: 57-94 text-figs. 1-10.
- Slautterback, D. B. & Fawcett, D. W.** An electron microscopic study of differentiation in the cnidoblasts of hydra [sic]. [Abstract.] Anat. Rec. **132** 3 1959: 507-508.
- Slautterback, D. B. & Fawcett, D. W. (1).** The Development of the Cnidoblasts of Hydra [sic]. An Electron Microscope Study of Cell Differentiation. J. Biophys. & Biochem. Cytol. **5** 3 1959: 441-452 pls. 193-200.
- Slautterback, D. [B.]** see Fawcett, D. W.
- Sloan, R. E.** An occurrence of *Desmograptus cancellatus* in the Stewartville dolomite of Minnesota. J. Paleont. **33** 4 1959: 680-681 pl. 89.
- Smith, R. I.** see Light, S. F.
- [Soshkina, E. D., in Ivanova, E. A., Soshkina, E. D., Astrova, G. G., & Ivanova, V. A. Fauna Ordovika i Ghotlandiya Nizhnego Tscheniye R. Podkammennoi Tunghuski, ee ekologiya i stratigraficheskoe znachenie. Koralli.] Trav. Inst. Paleont. Acad. Sci. U.R.S.S. **56** 1955: 118-128, 192-193 pls. 6, 7, 9-13. [Russian only.]**
- Southcott, R. V.** Tropical Jellyfish and Other Marine Stingings. Milit. Med. **124** 8 1959: 569-579 text-figs. 1-6.
- Southcott, R. V. & Kingston, C. W.** Lethal Jellyfish Stingings: A Study in "Sea Wasps" (summary). Med. J. Austral. **1** 1959: 443-444.
- Spasov, C. & Nikolov, I.** Dendroide Graptolithe aus dem Paläozoikum in Bulgarien. C.R. Acad. bulg. Sci. **12** 6 1959: 537-539 figs. 1, 2.
- Squires, D. F.** Results of the Puritan-American Museum of Natural History Expedition to Western America. Corals and Coral Reefs in the Gulf of California. Bull. Amer. Mus. nat. Hist. **118** 7 1959: 367-432 pls. 28-34 text-figs. 1-20.
- Squires, D. F. (1).** Deep Sea Corals Collected by the Lamont Geological Observatory. 1. Atlantic Corals. Amer. Mus. Novit. **1965** 1959: 1-42 text-figs. 1-24.
- Stacul, P.** see Schouppé, A. v.
- Stagni, A.** Appunti di morfologia ed istologia—su innesti omo ed eteroplastici fra *Hydra vulgaris* e *Chlorohydra viridissima*. Boll. Zool. **25** (for 1958) 1959: 109-122 pls. 1, 2. [Italian with English summary.]
- Steiner, G.** see Balke, E.
- Stelck, C. R.** see Warren, P. S.
- Stewart, J. R.** see White, D. A.
- Stiasny, G. A.** Alcyonaria I. Gorgonaria aus dem Roten Meere. Sammlung Dr. R. Ph. Dollfus, Paris, aus dem Golf von Suez. Rés. Sci. Miss. R. P. Dollfus en Egypte 1927-29 Paris **3** No. 24 1959: 37-65 pls. 1-8 text-figs. A-H map.
- Suarez-Cabro, J. A.** Salinidad, temperatura y plancton de las aguas costeras de Isla de Pinos. Monogr. Lab. Biol. mar. Habana **7** 1959: 1-30 text-figs. 1-7.
- Subba Rao, D. V.** see Ganapati, P. N.
- Sučić, Z.** Contribution à la connaissance stratigraphique et paléontologique des assises jurassiques d'environ de mine de charbon "Jerma" en Serbie Orientale. Ann. géol. Pénin. balk. **26** 1959: 163-175 pls. 1-5. [Corals, pp. 164-167. Serbian with French résumé.]
- Šuraru, M.** Contributions à la connaissance de la faune de coralliaires du Crétacé Supérieur du bassin de Borod. (Note préliminaire.) Bull. Univ. "V. Babes" și "Bolyai" Cluj Ser. Sti. nat. **2** 1-2 1957: 291-295. [Rumanian with Russian and French summaries.]
- Swedmark, B.** On the biology of sexual reproduction of the interstitial fauna of marine sand. Proc. int. Congr. Zool. **15** (1958) 1959: 327-330.
- Swedmark, B. & Teissier, G.** *Halammohydra* et *Otahydra*, hydrozoaires de la microfaune des sables et l'ordre des Actinulides. Proc. int. Congr. Zool. **15** (1958) 1959: 330-332.
- Sy, E.** Die Gattung *Stromaporiidum* Vinassa de Regny aus der Ober-Trias der Insel Timor (Hydrozoa). Anz. öst. Akad. Wiss. **95** 11 1959: 163-168.
- Takeda, H.** see Minato, M.
- Tambs-Lyche, A.** Zoogeographical and Faunistic Studies on West Norwegian Marine Animals. Arb. Univ. Bergen. Naturv. R. **1958** 7 1959: 1-24 text-figs. 1-4.
- Tardent, P. & Eymann, H.** Experimentelle Untersuchungen über den regenerationshemmenden Faktor von Tubularia [sic]. Roux Arch. Entw. Mech. Organ. **151** 1 1959: 1-37 text-figs. 1-9.
- Tardent, P.** see Faulhaber, I.
- Taylor, H.** see Broekhuysen, G. J.

- Teissier, G.** see Swedmark, B.
- Thiel, M. E.** Semaestomae: Physiologie. Bronns Klassen 2 Band 2 Abt. 2 Buch 6 Lief. 1959: 849-1072 text-figs. 430-495.
- Thiel, M. E. (1).** Gibt es einen Generationswechsel bei den Scyphomedusen? Ein Beitrag zum Begriff der Generation, der Generationenfolge und des Generationswechsels. Abh. Verh. naturw. Ver. Hamburg N.F. 3 1959: 37-54 text-figs. 1, 2.
- Thieuloy, J.-P.** Etude micrographique des "calcaires à débris" barrémo-aptiens sur le pourtour méridional du Vercors. Trav. Lab. Géol. Univ. Grenoble 35 1959: 39-99 pls. 1-25. [Coelenterates p. 71.]
- Thomas, G. A.** The Lower Carboniferous Laurel Formation of the Fitzroy Basin. Rep. Aust. Bur. Min. Res. Geol. geophys. 38 1959: 21-36 1 pl. text-figs. 1-3. [Corals by D. Hill.]
- Thomas, H. D.** [Determination of a solitary coral fossil] in Bartholomew, R. W., Geology of the Lautoka Area, North-West Viti Levu. Bull. Geol. Surv. Dept. Suva Fiji 2 [1959]: 19.
- Thompson, T. G.** Thomas Wayland Vaughan. Nat. Acad. Sci. U.S.A. Biogr. Mem. 32 1958: 399-437 portrait.
- Tilgner, S.** see Patzold, D.
- Tilney, L. G.** see Chapman, G. B.
- Tixier-Durivault, A.** Alcyonaria II: Alcyonidae et Nephthidae (à suivre). Rés. Sci. Miss. R. P. Dollfus en Egypte 1927-29 Paris 3 No. 33 1959: 253-255.
- Tixier-Durivault, A. & Prevorsek, M.** Revision de la famille des Nephthidae. 1.—Le genre *Spongodes* Lesson 1831. Mém. Mus. nat. Hist. nat. Paris N.S. 20A 1959: 1-151 text-figs. 1-85.
- Tokin, B. P.** The immunity of embryos—a problem of comparative embryology and of general zoology. Proc. int. Congr. Zool. 15 (1958) 1959: 583-585.
- Tokin, B. P. & Tokin, I. B.** The relation between processes of the oogenesis and budding with *Hydra oligactis*. Vestn. leningr. Univ. No. 3 Ser. Biol. No. 1 1959: 72-75 text-figs. 1, 2. [Russian with English summary.]
- Tokin, I. B.** see Tokin, B. P.
- Uchida, T. & Muramatsu, S.** Notes on Some Japanese Sea-anemones. J. Fac. Sci. Hokkaido Univ. 6 (Zool.) 14 1 1958: 111-119 text-figs. 1-5.
- Uchida, T. & Nagao, Z.** The life-history of a Japanese Brackish-water Hydroid, *Ostroumova horii*. J. Fac. Sci. Hokkaido Univ. (Zool.) 6 14 2 1959: 265-281 text-figs. 1-36.
- Urbanek, A.** Studies on graptolites. I. Development and structure of *Pristiograptus gotlandicus* (Perner). Acta palaeont. polon. 4 1 1959: 11-26 pls. 1, 2 text-figs. 1-4. [English with Polish and Russian summaries.]
- Urbanek, A. (1).** Studies on graptolites. II. On the development and structure of graptolite genus *Gymnograptus* Bulman. Acta palaeont. polon. 4 3 1959: 279-338 pls. 1, 2 text-figs. 1-18. [English with Polish and Russian summaries.]
- [Ushakov, P. V.]** see Naumov, D. B.]
- Utinomi, H.** Coloured illustrations of sea-shore animals of Japan. [Fauna and Flora of Japan No. 8] [2], i-xvii 1-67 pls. 1-64 (col.) and 1-12 text-figs. 1, 2. Hoikusha, Osaka, 1956. [Japanese only—coelenterates pp. 3-28.]
- Utinomi, H. (1).** Fleishy alcyonarians from southern Formosa. Publ. Seto mar. biol. Lab. 7 3 1959: 303-312 text-figs. 1-4.
- Vannucci, M.** On Brazilian Hydromedusae and their distribution in relation to different water masses. Bol. Inst. oceanogr. S. Paulo 8 1-2 1957: 23-109 text-figs. 1-31.
- Vannucci, M. & Yamada, M.** The Life Cycle of *Merga tergestina* (Anthomedusae, Pandeidae). Pubbl. Staz. zool. Napoli 31 (2) 1959: 320-333 text-figs. 1-7. [English with Italian summary.]
- Vervoort, W.** The Hydroids of the Tropical West Coast of Africa. Atlantide Rep. 5 1959: 211-325 text-figs. 1-57.
- Vevera, H. G.** Birth of a *Triclycha*. New Scient. 6 149 1959: 506-507 text-figs. 1-6.
- Voigt, E.** *Endosacculus moltikiae* n.g. n.sp., ein vermuthlicher fossiler Ascothoracide (Entomozoa) als Cystenbildner bei der Oktokoralle *Moltikia minuta*. Paläont. Z. 33 4 1959: 211-223 pls. 25, 26 text-figs. 1, 2.
- Volkova, M. S.** Lower Carboniferous strata of the Ishim River and their coral fauna. Mat. Geol. Useful Min. Kazakhstan 4 1938: 52 pp. 10 pls. [Russian with English summary—not seen. Many new spp. and varr. of Rugose corals.]
- Volkova, M. S. (1).** Lower Carboniferous Corals from Central Kazakhstan. Mater. Geol. Useful Min. Kazakhstan 11 1941: 1-120 pls. 1-14. [Russian with English summary.]
- Wada, T.** see Yanagita, T. M.
- Warren, P. S. & Stelck, C. R.** Reference Fossils of Canada. Part I. Devonian Faunas of Western Canada. Geol. Assoc. Canada Spec. Pap. 1 1956: 1-15 pls. 1-29.
- Watkins, J. L.** On the identity of the Devonian rugose coral genus *Diversophyllum* with *Tabulophyllum*, and notes on the genus *Charactophyllum*. J. Paleont. 33 1 1959: 81-82 pl. 16.
- Watkins, J. L. (1).** Middle Devonian aulopodid corals from the Traverse group of Michigan. J. Paleont. 33 5 1959: 793-808 pls. 108-111.
- Weesner, F. M.** see Light, S. F.
- Wells, J. W.** Notes on Indo-Pacific Scleractinian Corals. Parts I and II. Part I. *Oryzotrochus*, a New Genus of Turbinolite Coral. Part II. A New Species of *Turbinaria* from the Great Barrier Reef. Pacif. Sci. 13 3 1959: 286-290 11 text-figs.
- Welsh, J. H. & Prock, P. B.** Quaternary ammonium bases in the coelenterates. Biol. Bull. Woods Hole 115 (3) 1958: 551-561 text-figs. 1-3.
- Werner, B.** Die Verbreitung und das jahreszeitliche Auftreten der Anthomeduse *Rathkea octopunctata* M. Sars, sowie die Temperaturabhängigkeit ihrer Entwicklung und Fortpflanzung. Helgoländ. wiss. Meeresunters. 6 2 1958: 138-170 text-figs. 1-13. [German with English summary.]
- Werner, B. (1).** Dauerstadien bei marinen Hydrozoen. Naturwissenschaften 46 7 1959: 238.
- Werner, B. (2).** The hydromedusae of Port Erin Bay in May & June, 1957. Rep. mar. biol. Sta. Pt. Erin for 1958 No. 71 1959: 32-38.
- White, D. A. & Stewart, J. R.** Discovery of Graptolites in North Queensland. Austr. J. Sci. 22 2 1959: 76.

Willefert, S. see Destombes, J.

Wilson, D. M. Long-term facilitation in a swimming sea anemone. *J. exp. Biol.* **36** 3 1959 : 526-532.

Windt, H. Beobachtungen über die Nahrungsaufnahme und das Verhalten der Seenelke *Metridium senile* L. Kieler Meeresforsch. **15** 1 1959 : 84-88 text-figs. 1-8.

Wood, E. J. F. & Allen, F. E. Common Marine Fouling Organisms of Australian Waters : 1-23 pls. 1-43. Navy Office, Melbourne, 1958. (Hydrozoa pp. 11-12.)

Wood, R. L. Intercellular Attachment in the Epithelium of *Hydra* As Revealed by Electron Microscopy. *J. Biophys. & Biochem. Cytol.* **6** 3 1959 : 343-352 pls. 160-165 text-fig. 1.

Yamada, M. Hydroids from the Japanese Inland Sea, mostly from Matsuyama and its vicinity. *J. Fac. Sci. Hokkaido Univ.* **6** (Zool.) **14** 1 1958 : 51-63 text-figs. 1-4.

Yamada, M. see Vannucci, M.

Yanagita, T. M. Physiological Mechanism of Nematocyst Responses in Sea-Anemone. I. Effects of Trypsin and Thioglycolate upon the Isolated Nematocysts. *Jap. J. Zool.* **12** 3 1959 : 361-375 text-figs. 1-7.

Yanagita, T. M. (1). Physiological Mechanism of Nematocyst Responses in Sea-Anemone. II. Effects of Electrolyte Ions upon the Isolated Cnidae. *J. Fac. Sci. Tokyo Univ. (Zool.)* **8** 3 1959 : 381-400 text-figs. 1-11.

Yanagita, T. M. (2). Physiological mechanism of nematocyst responses in sea-anemone. VII. Extrusion of resting cnidae—its nature and its possible bearing on the normal netting response. *J. exp. Biol.* **36** 3 1959 : 478-494 text-figs. 1-5.

Yanagita, T. M. & Wada, T. Physiological Mechanism of Nematocyst Responses in Sea-Anemone. VI. A note on the microscopical structure of acnium, with special reference to the situation of cnidae within its surface. *Cytologia Tokyo* **24** 1 1959 : 81-97 text-figs. 1-7.

Yoshida, M. Effect of Acetylcholine and Eserine on the Spawning of *Hydractinia echinata*. *Nature Lond.* **184** 4693 1959 : 1151.

Yoshida, M. (1). Spawning in Coelenterates. *Experientia* **15** 1 1959 : 11-12. [English with French résumé.]

Zahálka, B. Nálež medusovitě formy v křide beskydské. *Vestn. geol. Úst. čsl.* **32** 4 1957 : 294-296 pl. 1. [Czech with English summary.]

Zahl, P. A. & McLaughlin, J. J. A. Studies in Marine Biology. IV. On the Role of Algal Cells in the Tissues of Marine Invertebrates. *J. Protozool.* **6** 4 1959 : 344-352 text-figs. 1-7.

Zahl, P. A. see McLaughlin, J. J. A.

Zbyszewski, G. Etude Structurale de l'Aire Typhonique de Caldas da Rainha. *Mem. Serv. geol. Portugal* **3** 1959 : 1-184 pls. 1-11 maps text-figs. [Corral lists, pp. 34, 103.]

Zhirumsky, A. V. & Kiseleva, M. I. Adaptation of Black Sea sea anemones to increased salt concentration. *Dokl. Akad. Nauk S.S.S.R. (Transl.) Biol. Sci.* **117** 1-6 1957 : 1065-1068 text-figs. 1, 2.

Zhuravel, P. A. The hydroid *Cordylophora caspia* Pallas (Coelenterata) in the system of the Dnieper Reservoir (Lake Lenin). *Rep. Acad. Sci. Kiev No. 6* 1959 : 672-674. [Russian with English summary.]

Zimmermann, K. F. see Lenhoff, H. M.

Zukalova, V. Stromatoporoidea of the Devonian of Hranice. *Sborn. Úst. Úst. Geol.* **24** 1957 : 313-348 pls. 44-49 (1-6). [Czech with English and Russian summaries.]

II.—SUBJECT INDEX

GENERAL LITERATURE AND HISTORY

Obituaries.—C. M. Child, HYMAN ; E. G. Conklin, HARVEY ; T. Wayland Vaughan, THOMPSON.

Textbooks and General Works.—FREY ; LIGHT ; MACAN ; MÜLLER (numerous figures, copies) ; POKORNÝ.

Popular and semi-popular works.—BURNETT ; LANE ; NEWELL ; NEWELL (1).

Monographs.—Hydromedusae of the Atlantic Ocean and adjacent waters, KRAMP (1).

Classification and Nomenclature.—Validation of the specific name *gemmascens* as published in the binomen *Madrepora gemmascens* (Class Hydrozoa, Class Stylasterina), OPINION **574** ; classification of fossil polypoid Hydrozoa, FLÜGEL, E. ; validity and systematic position of *Georginella diaphana*, *Halammohydra* and *Hydroctena salensis*, HADŽI (1) ; designation of lectotypes for *Monograptus fimbriatus* var. *similis*, *M. triangularis* var. *major* and *M. communis* var. *rostratus*, OPINION **571** ; neotype of *Diplograptus gracilis* chosen, and *Xenotheca klinostoma* referred to the graptolites, EISENACK ; *†Dickinsonia* may be an annelid and not a coelenterate, GLAESSNER (1) ; the species problem in corals, BOSCHMA (1).

Terminology.—For hydroids, PENNYCUK ; for stromatoporoids, FLÜGEL, E. ; for *†Thamnoporidae*, [CHUDINOVA].

Technique.—Use of phosphotungstic acid for improving contrast in materials embedded in epoxy resins, WOOD, R. L. ; a quantitative chemical assay for the migration of *Hydra* cnidoblast, LENHOFF & BOVAIRD (1) ; for *Hydra*, PAETZOLD & TILGNER ; for measuring the rate of calcium deposition by corals under different conditions, GOREAU ; a simple apparatus for zooplankton counts, especially *Pleurobrachia*, BOSSANYI.

Catalogues of type specimens.—Gorgonacea in the Museo Zoologico at Turin, ROSSI (2).

Coelenterates as food of the lemon sole, RAE.

Role of the Wrocław Zoological Institute and Museum in the study of Anthozoa of the Adriatic Sea, PAX & MÜLLER (1).

STRUCTURE

Mesogloea of some hydrozoa, BOUILLON ; mesogloea of *Palagia noctiluca*, CHAPMAN ; cytology of nematocysts of *Hydra*, CHAPMAN, G. B. & TILNEY, also CHAPMAN, G. B. & TILNEY (1) ; intercellular attachment in the epithelium of *Hydra*, WOOD, R. L. ; hermaphroditism in the gonad of *Rathkea octopunctata*, KULIKOVA ; *Monobranchium parasiticum*, NAUMOV (2) ; *†Actinostroma*, FLÜGEL, E. ; sicula and prosicula of *Diplograptus*, EISENACK ; *†Pristiograptus gotlandicus*, URBANEK ; *†Gymnograptus*, URBANEK (1) ; spicules of Paramuriceidae, BAYER (1) ; Xenidiidae, GOKAR & ROUSHIDY ; *†Thamnoporidae*, [CHUDINOVA] ; walls of certain tabulate corals, LAFUSTE ; *†Holacanthopora*, *†Pleurodictyum* and *†Roemeria*, LE MAITRE ; certain spp. of *†Pleurodictyum*, LE MAITRE (1) ; histogenesis, micro-

scopical and histochemical composition of mesoderm of some anthozoans, LEHISEA & MAZZI; histological structure of acontium of *Diadumene luciae*, YANAGITA & WADA; septal structure of some hexacorals, KOLOS-VÁRY; the fossula of rugose corals and its taxonomic significance, SCHOUPPE & STACUL (1); Permian rugose corals, SCHOUPPE & STACUL; nervous system of *Pleurobrachia pilius*, KORN.

Chemical composition.—Free amino acids in *Bunodosoma cavernata*, SIMPSON, ALLEN & AWAPARA; trace elements in *Veella lata*, BIERI & KRINSLEY; pigments in a siphonophore, FOX & HAXO; ribonucleic acid in coelenterates, KIKNADZE; antigens in *Tubularia crocea*, MORRILL; antigenic composition of *Tubularia hydrantha* and stems, MORRILL (1); alkaline phosphatase in *Hydra*, NAIR & SANE; iodine in coelenterates, ROCHE, J.; quaternary ammonium bases in coelenterates, WELSH & PROCK.

PHYSIOLOGY

Biochemical studies of symbiotic processes in *Chlorohydra viridissima*, LENHOFF & ZIMMERMANN; biochemistry of the Coelenterata, KABER & MICHL; intercellular bridges in groups of cells exhibiting synchronous differentiation, FAWCETT, ITO & SLAUTTERBACK; rhythm of the nerves and muscles of medusae, HORRIDGE; adaptation of Black Sea sea anemones to increased salt concentration, ZHIRMUNSKY & KISELEVA; effects of intercellular attachment in the epithelium of *Hydra*, WOOD, R. L.; immunity in embryos of *Hydra oligactis*, TOKIN; factors influencing the metamorphosis of *Tubularia* larvae, LYNCH; spontaneous change of form in individual polyps of *Pelmato-hydra oligactis*, REIS; regionalism in the inductive power of *Hydra* tentacle, MOOKERJEE & SINHA; chemical control of feeding in *Physalia physalis*, LENHOFF & SCHNEIDERMAN; respiration in *Hydra*, LENHOFF & LOOMIS; role of the mesoglea in swimming by *Pelagia noctiluca*, CHAPMAN, G.; requirement of bound calcium for the action of surface chemoreceptors of *Hydra*, LENHOFF & BOVAIRD; experiments on heterografts of *Hydra vulgaris* and *Chlorohydra viridissima*, and homo-grafts of *H. vulgaris*, STAGNI; interspecific tissues of associations (grafts) of *Hydra* spp., KOLENKINE; time sequence of certain physiological events during regeneration in *Hydra*, HAM & EAKIN; of medusa-formation in *Eirene viridula*, GÜNZL; histophysiology of growth in *Hydra*, BURNETT; changes in the generation of scyphomedusae, THIEL (1); Semaeostomae, THIEL; intermittent conduction in scyphozoan nerve nets, PASSANO; control of sexual differentiation in *Hydra*, LOOMIS; interactions between asexual reproduction and sexual differentiation in *Craspedacusta*, LYTLE; sexuality in *Cerianthus membranaceus*, FIMIANI; role of zoanthellae in the tissues of two coelenterates, ZAHL & McLAUGHLIN; light factors influencing spawning in *Hydractinia*, YOSHIDA (1); histochemical and cytological data on luminescence in *Pelagia*, BASSOT; sensitivity to light in *Metridium senile*, NORTH; influence of pressure, temperature and urethane on the luminiscent flash of *Mnemiopsis leidyi*, CHANG & JOHNSON; neuromuscular system of the Xenidae, GOKAR & ROUSHDY; of the neuromuscular system of *Heteroxenia*, GOKAR & ROUSHDY (1); microscopical structure of acontium of *Diadumene luciae*, with special reference to the situation of cnidae within its surface, YANAGITA & WADA; long-term facilitation in a swimming sea anemone, WILSON; stimulation of oesophageal cilia of *Metridium senile*, SCHLIEPER; feeding mechanism and behaviour of *Metridium senile*, WINDT; digestion in sea anemones, NICOL; analysis of the

periodical activity of *Actinia*, KOSHTOYANTS; calcium deposition by hermatypic corals, GOREAU & GOREAU; a method for measuring the rate of calcium deposition by corals under different conditions, GOREAU.

Nematocysts.—Of *Physalia physalis*, LANE; migration of *Hydra* cnidoblast, LENHOFF & BOVAIRD (1); requirement of extracellular sodium ion by *Hydra littoralis* for growth and cnidoblast migration, LENHOFF & BOVAIRD (2); differentiation in the cnidoblasts of *Hydra*, SLAUTTERBACK & FAWCETT, also SLAUTTERBACK & FAWCETT (1); effects of trypsin and thioglycolate on the nematocysts of *Diadumene luciae*, YANAGITA; effects of electrolyte ions on the isolated cnidae of *Diadumene luciae*, YANAGITA (1); responses in a sea anemone, YANAGITA (2).

Regeneration.—*Hydra*, HAM & EAKIN; loss of regenerative capacity in *Hydra* treated with lipoid acid, HAM & EAKIN (1); free amino-acids and regeneration of *Tubularia larynx*, FAULHABER & TARDENT; inhibitor water and the regeneration of *Tubularia*, FULTON; *Tubularia*, TARDENT & EYMANN; regeneration in the scyphistoma of *Cyanea capillata* and its relation to the stage of development, KAUFMAN; actinians, ABELOOS.

Stinging Effects on Man.—Tropical and other marine jellyfish stings, SOUTHGOTT, also SOUTHGOTT & KINGSTON; coelenterates, ALBAHARY & BUDKER; dangerous coelenterates, HALSTEAD; *Physalia physalis*, LANG.

REPRODUCTION

Of coelenterates of the interstitial spaces of marine sand, SWEDMARK; relation between ovogenesis and budding in *Hydra oligactis*, TOKIN & TOKIN; sexual cycles in *Hydra*, PARK; budding in *Craspedacusta sowerbyi*, HADŽI (1); interactions between asexual reproduction and sexual differentiation in *Craspedacusta*, LYTLE; hermaphroditism in the gonad of *Rathkea octopunctata*, KULIKOVA; *Rathkea octopunctata*, WERNER; effect of acetylcholine and eserine on the spawning of *Hydractinia echinata*, YOSHIDA; spawning in two spp. of *Hydractinia*, YOSHIDA (1).

DEVELOPMENT

Morphology of tentacular structures in some gymno-blast Capitata, PREVOT; in marine Hydrozoa, WERNER (1); alternation of generations in a hydroid, BRINCKMANN; gonophore development in *Hydractinia echinata*, AVSET; differential responses of growth zones to nutritive level, age and temperature in *Campanularia*, CROWELL; *Camella vilas-velebiti*, HADŽI; budding in *Craspedacusta sowerbyi*, HADŽI (1); life history of *Cladonema pacifica*, NAUMOV (1); ovogenesis and budding in *Hydra oligactis*, TOKIN & TOKIN; *Triclyda*, VEVERS; life-history of *Ostroumova horii*, UCHIDA & NAGAO; *Rathkea octopunctata*, WERNER; *Merga tergestina*, VANUCCI & YAMADA; of scyphistoma larvae off India, GANAPATI & LAKSHMANA RAO; *Pristiograptus gollandicus* URBANEK; *Gymnograptus*, URBANEK (1); cycles in *Aurelia aurita* and *Dactylometra pacifica*, HIRAI; regeneration in the scyphistoma of *Cyanea capillata* and its relation to the stage of development, KAUFMAN; maturity in *Atolla* of the Bay of Biscay, RUSSELL; changes in the generation of scyphomedusae, THIEL (1); corallum of *Halytiidae*, HAMADA; variation of corallum-shape and wall-thickness in *Favosites* and *Thamnopora*, HAMADA (1); ontogeny of *Diploctenium*, GÉCZY; calcification and growth in reef-forming corals, GOREAU (2); effect of water temperature on growth rate of corals, MA; variability and differentiation in *Fungia*, ROSSI (1).

EVOLUTION AND RELATIONSHIPS

Origin of the coelenterates, JÄGERSTEN, also MARCUS; of the cnidaria, LENHOFF & SCHNEIDERMAN; parallel evolution in the Hydrozoa and Scyphozoa, [NAUMOV (4)]; of the Siphonophora, MACKIE; of tentacular structures in some gymnoblast Capitata, PREVOT; trends in *Actinostroma*, FLÜGEL, E.; phylogeny of Ludlovian graptolites, JÄGER; in the Lasiograptidae, URBANEK (1); phylogeny of *Thamnoporidae*, [CHUDINOVA]; relationship between *Favosites*, *Thamnopora* and *Pachypora*, HAMADA; relation of growth rate of reef corals to surface sea water temperature as a basis for the causes of diastrophism initiating evolution, MA (1); development of the fauna of the Middle and Upper Carboniferous of the western part of the Moscow syncline in connection with the conditions of its existence, IVANOVA; of the *Lithostrotion mutabile*—*L. whitneyi* group, NELSON, also NELSON (1).

ECOLOGY AND HABITS

Chemical food selection of *Palmatohydra oligactis*, BALKE & STEINER; changes in a population of *Chlorohydra viridissima* in a Northamptonshire pond, PAXMAN; effects of fluctuating water level on the fauna of a Bavarian lake, ENGELHARDT; hydrological conditions and the planktonic coelenterates of the southern Baltic Sea, MANKOWSKI; of deep-water in the Mediterranean, PARENZAN (1); of a S. African estuary, BROEKHUYSEN & TAYLOR; factors affecting macro-invertebrate assemblages of some Texan coastal waters, PARKER; planktonic medusae and physical and chemical conditions in the Canadian arctic, GRAINGER; of rocky, sandy and muddy shores of a Venezuelan island, RODRIGUEZ; of coelenterates of a Cuban island, SUAREZ-CAABRO; relation of temperature to occurrence of *Rathkea octopunctata* and to reproduction in that sp., WERNER; Hydrozoa in the cooling water of some English power stations, MARKOWSKI; hydroids of the submarine caves of the Gulf of Naples, RIEDL; seasonal and annual variation of the Hydromedusae and Scyphomedusae of the Moroccan plankton, FURNESTIN; zooplankton of the Black Sea, MARGINEANU & PETRAN; distribution of Brazilian Hydromedusae in relation to different water masses, VANNUCCI; marine fouling Hydrozoa of Australian waters, WOOD, E. J. F. & ALLEN; conditions affecting fouling by hydroids at Auckland, New Zealand, SKERMAN; of graptolites, JÄGER; of stromatoporoids, FLÜGEL, E.; of Triassic Hydrozoa, FLÜGEL, E. & EBERHARD; of *Lophelia* off West Norway, TAMBS-LYCHE; intertidal anthozoa of western France, CRISP & FISCHER-PIETTE; anthozoa of sea-caves of the Gulf of Naples, ABEL; palaeoecology of fossil corals, [GHEKKER]; of Carboniferous Rugosa of the Moscow syncline, [DOBROLYUBOVA], also [IVANOVA]; of Siberian Devonian Thamnoporidae, [CHUDINOVA]; of Devonian coral fauna of western Canada, WARREN & STELCK; adaptation to facies of the Rugosa of the Sayano-Altai area, [IVANIYA (4)]; of Ordovician and Silurian corals of Siberia, [IVANOVA, SOSHKINA, ASTROVA & IVANOVA]; of Ordovician and Silurian corals in Siberia, [SOSHKINA]; feeding of a ctenophore, NAGABHUSHANAM.

Commensalism, Association and Symbiosis.—Zooxanthellae and coelenterates, McLAUGHLIN & ZAHL; algae and a siphonophore, FOX & HAXO; in *Chlorohydra viridissima*, LENHOFF & ZIMMERMANN; Narcomedusae larvae on hydrozoa (p. 73), KRAMP (1); an actinian and a shrimp, PAX; *Calliactis parasitica* and a hermit crab, ROSS; *Paracalliactis lacazei* and a pagurid, DECHANCE & DUBAURE; a sea anemone and a poma-

centrid fish, DAVENPORT & NORRIS; corals and various organisms, [IVANOVA]; a fossil entomostracan and an alcyonarian, VOIGT; worms and Recent and fossil corals, SCHINDEWOLF; a worm and a tabulate coral, [GHEKKER]; rugose corals and *Spirorbis*, [DOBROLYUBOVA].

Coral reefs.—Nature, origin and distribution of atolls, CLOUD; West Norway, TAMBS-LYCHE; Mediterranean, PARENZAN; NEWELL; American coral seas, NEWELL (2); Gulf of California, SQUIRES; West Indies, NEWELL (1); Jamaican coral reefs, GOREAU (1), also GOREAU (3); Great Barrier Reef and adjacent isles, GILLET & McNEILL; factors influencing the distribution of corals on the reefs of Arno Atoll, Marshall Islands, HIATT; biological factors underlying the dissolution of coral limestone in the Tuamotu Islands, RANSON; Tuamotu Islands, RANSON (1); Devonian of the Belgian-Rhenish geosynclinal, Lecompte; Devonian of western and arctic Canada, McLAREN (1).

DISTRIBUTION

1.—GEOGRAPHICAL

A.—MARINE

Atlantic Ocean (including Mediterranean and Black Seas).—Planktonic coelenterates of the southern Baltic Sea, MANKOWSKI; coelenterates of the Ligurian Sea, ROSSI (5); planktonic coelenterates of a Cuban island, SUAREZ-CAABRO; coelenterates of a Venezuelan island, RODRIGUEZ; Hydromedusae of the Atlantic Ocean and adjacent waters, KRAMP (1); *Tetraplatia volitans* from the western N. Atlantic and *T. chuni* from the S. Atlantic, RALPH; European distribution of *Rathkea octopunctata*, WERNER; an anthomedusan from the English Channel, RALPH (1); medusae and actinulae of two hydrozoa in the southern North Sea, AURICH; hydromedusae of the Isle of Man, WERNER (2); *Verella verella* and *Physalia physalis* on the Irish coast, ROCHE, G.; *Physalia physalis* off Dorset, LANG; *P. physalis* off Ireland, ATKINS, also FRIEL; *Goniomemus murbachi*? in a Scottish aquarium tank, HOWE; *Verella verella* off Scotland, EDWARDS; hydrozoans of W. France, SWEDMARK & TEISSIER; a hydrozoan in the Caspian Sea, LOGVINENKO; a hydromedusa from the Gulf of Naples, BRINCKMANN; hydroids of the Gulf of Naples, RIEDL; Hydroids of tropical W. Africa, VERWOORT; Hydrozoa of Cape Town Docks, MILLARD (1); Brazilian hydromedusae, VANNUCCI; dimorphic and size distribution in *Verella* and *Physalia*, BIERI; Hydrozoa and Anthozoa of N. Wales, KNIGHT-JONES & JONES; hydrozoa and zoantharia of East Scottish fishing grounds, McIntyre; hydrozoa and corals of West Norway, TAMBS-LYCHE; hydromedusae and scyphomedusae of the Moroccan plankton, FURNESTIN; hydrozoa and scyphozoa from W. Africa, KRAMP (2); a hydrozoan and ctenophore of the Black Sea, MARGINEANU & PETRAN; *Alolla* spp. of the Bay of Biscay, RUSSELL; a new gen. and sp. of deep-sea scyphozoan off Spain, RUSSELL (1); two spp. of *Stephanoscyphus* of the "Galathea" Expedition, KRAMP (4); a scyphozoan off Texas, GUEST; *Cassiopea xamachana* off Aruba, SOUTHCOAT; spp. of *Placogorgia* reviewed, BAYER (1); octocorals from the north-eastern coast of S. America, BAYER; lemon-coloured plexaurids from the West Indies and Brazil, DEICHMANN & BAYER; alcyonarians and corals in the Gulf of Mexico, MOORE; a coral and alcyonarian of Texas, PARKER; a zoantharian in a warm Welsh dock, NAYLOR; a new genus and sp. of actinian from S. France, DUBAURE; madreporarian corals near Portugal, ROSSI (4); a new sp. of *Para-*

calliatis from the Mediterranean, DECHANCÉ & DUFAURE; Anthozoa of Mediterranean reefs, PARENZAN; deep-water corals of the Gulf of Genoa, BLANC; a zoantharian in the Gulf of Genoa, ROSSI (3); anthozoa of sea-caves of the Gulf of Naples, ABEL; Adriatic anthozoans, PAX & MÜLLER (1); deep sea corals collected by the Lamont Geological Laboratory. SQUIRES (1); corals of Jamaican reefs, GOREAU (1).

Pacific Ocean.—Coelenterates of eastern U.S.S.R., [NAUMOV]; coelenterates of Japan, UTINOMI; coelenterates of California, LIGHT; dimorphic and size distribution of *Veleva*, BIERI; hydromedusae of the "Galathea" Expedition, KRAMP (3); *Tetraplatia* from the E. Pacific, RALPH; hydroids from Japan, YAMADA; marine and brackish-water hydroids from Queensland, PENNYCUIK; two fouling hydroids of Australia, WOOD, E. J. F. & ALLEN; hydroids of New Zealand, SKERMAN; hydroids and jellyfishes of the Aleutian Islands, SCHEFFER; two spp. of *Stephanoscyphus* of the "Galathea" Expedition, KRAMP (4); coronomedusae polypoid generations from N.E. Russia, NAUMOV (3); dangerous jellyfishes of Australia, New Guinea, etc., SOUTH-COTT; spp. of *Placogorgia* reviewed, BAYER (1); revision of the spp. of *Distichopora*, BOSCHMA; *Spongodes* spp. revised, TIXIER-DURIVAUT & PREVORSEK; alcyonarians from Formosa, UTINOMI (1); gorgonarians of the Gulf of Panama and Ecuador, ROSSI; Faviida of the Philippines, NEMENZO; four Japanese spp. of *Anthopleura*, UCHIDA & MURAMATSU; a new coral genus and a new sp. of *Turbinaria* from the Great Barrier Reef, WELLS; *Diadumene luciae* in British Columbia, CARL & GUIGUET; corals of the Gulf of California, SQUIRES; Corallimorpharia and Actiniaria from Chile and Peru, CARLGREN.

Indian Ocean.—Hydrozoa from Natal and Portuguese East Africa, MILLARD; *Physalia* distribution in Indian waters, GANAPATI & SUBBA RAO; a fouling hydroid of W. Australia, WOOD, E. J. F. & ALLEN; hydromedusae and scyphomedusae of the "Galathea" Expedition, KRAMP (3); hydromedusae and scyphomedusae of India, Burma, etc., KRAMP; two scyphomedusae from the Gulf of Aqaba, MAADEN; a sp. of *Stephanoscyphus* of the "Galathea" Expedition, KRAMP (4); spp. of *Placogorgia* reviewed, BAYER (1); revision of the spp. of *Distichopora*, BOSCHMA; *Spongodes* spp. revised, TIXIER-DURIVAUT & PREVORSEK; Gorgonaria of the Gulf of Suez, STIASNY; alcyonaria of the Red Sea, TIXIER-DURIVAUT; corals associated with worms, SCHINDEWOLF.

Arctic Ocean.—Distribution of hydromedusae, KRAMP (1); medusae of Canada, GRAINGER; coronomedusae polypoid generations, NAUMOV (3); gorgonacea photographed on the bottom of the Ross Sea, BULLIVANT.

Antarctic Ocean.—Planktonic coelenterates in the Antarctic Ocean, SENO; distribution of hydromedusae, KRAMP (1).

B.—FRESHWATER

Hydrozoa of western Europe, GERMAINE; a hydrozoan in the Caspian Sea, LOGVINENKO; hydrozoa (one new) of India, KRAMP; hydrozoa of California, LIGHT; *Hydra* sp. in a Bavarian lake, ENGELHARDT; *Hydra*, BURNETT; *Chlorohydra* spp. of Northamptonshire, PAXMAN; a new sp. of *Chlorohydra* from the U.S.A., FORREST; *Cordylophora caspia* in the Dnieper Reservoir, ZHURAVEL; a new sp. of *Limnocola* from the Congo Basin, BOUILLON.

Craspedacusta.—*C. sowerbii*, HADŽI (1); *C. sowerbii* distribution, KRAMP (1); *C. sowerbii* in Germany, DENNERT, also PAX & MÜLLER.

2.—GEOLOGICAL

Pleistocene.—A coral from England, ANON.; corals of the Gulf of California, SQUIRES.

Pleistocene or Pliocene.—A coral from Fiji, THOMAS, H. D.

Tertiary.—A hydrozoan and three corals (one sp. n.) from Western Australia, PULLEY.

Pliocene.—A coral from England, ANON.; *Caryophyllia* in Portugal, ZBYSZEWSKI; corals of the Gulf of California, SQUIRES.

Miocene.—Corals in Germany, DITTMER; corals of Yugoslavia, JOVANOVIĆ & DOLIĆ; two corals in Serbia, GRUBIĆ; a coral of Croatia, EREMİJA; a coral in Turkey (p. 278), BLUMENTHAL; corals of Porto-Santo, N.E. of Madeira, SILVA.

Oligocene.—None.

Eocene.—Three English corals, ANON.

Cretaceous.—Spp. of *Actinostromaria*, FLÜGEL, E.; a hydrozoan in S.E. France, THIEULOUY; a stromatoporeid from Sardinia, HUDSON (2); a medusa-like form from Czechoslovakia, ZAHÁLKA; alcyonarian spicules from Bohemia, POKORNÝ; corals of Yugoslavia, MITROVIĆ-PETROVIĆ; corals from Hungary, GÉCZY, also KOLOSVÁRY (2); corals (lists) of Hungary and Transylvania, KOLOSVÁRY (3); corals (lists) of Rumania, ȘURARU.

Jurassic.—A new name for a stromatoporeid, HUDSON; spp. of *Actinostromaria*, FLÜGEL, E.; stromatoporeids of Yugoslavia, HUDSON (1); corals and hydrozoa in Arabia, HUDSON & CHATTON; a new genus and sp. of coral from France, BEAUVAIS; corals of Portugal (list) ZBYSZEWSKI; corals of Serbia, SUČIĆ; corals (lists) of Hungary and Transylvania, KOLOSVÁRY (3); hexacorals in Japan, ONUKI.

Triassic.—Hydrozoa of Europe and Asia, FLÜGEL, E. & EBERHARD; *Stromatoporeidum* from Timor, SY; corals (lists) of Hungary and Transylvania, KOLOSVÁRY (3).

Permian.—A hydrozoan from Russia, KONISHI; a coral of Yugoslavia, RAMOVŠ; Rugosa of eastern U.S.S.R., [FOMITCHEV]; corals of the north-eastern U.S.S.R., [KASHIRTZEV]; corals from Japan, IOD; two new corals from Japan, KAWANO; Rugosa of Timor, SCHOUPE & STACUL; a new genus and sp. of tabulate coral from California, LANGENHEIM & MOUTCHEON.

Carboniferous.—A hydrozoan from Russia, KONISHI; two new spp. of *Callograptus* from Bulgaria, SPASOV & NIKOLOV; corals in Northumberland, JOHNSON; corals of Belgium, CONIL; two rugose corals of Czechoslovakia, REHOR & REHOŘOVÁ; corals of Hungary, KOLOSVÁRY (1); a coral in Turkey (p. 273), BLUMENTHAL; tabulate corals of the Moscow syncline, [IVANOVA]; rugose corals of the Moscow syncline, DOBROLYUBOVA; corals of Kazakhstan, VOLKOVA, also VOLKOVA (1); corals of Japan, IOD (1), also KATO, also KATO (1), also KATO (2), also MINATO, TAKEDA, KAKIMI & KATO, also ONUKI & MORIAI; corals in Morocco, MILLIARD; correction in spelling of the name of a coral from New South Wales, CVANCARA; corals in Western Australia, THOMAS, G. A.

Devonian.—Spp. of *Actinostroma* revised, FLÜGEL, E.; stromatoporeids of Czechoslovakia, ZUKALOVA; stromatoporeids and corals of China, CHEN; new spp. of *Pleurodictyum* from N. Africa, LE MAITRE (1); Thamnoporidae of Siberia, [CHUDINOVA]; tabulate corals of the U.S.S.R., [GHEKKER]; cylindrical-arbor-

escent *Favosites* spp. of Asia, U.S.A., etc., HAMADA (1); tabulate corals (and a new genus and subgenus) associated with worms, SCHNEDWOLF; auloporoid corals of Michigan, U.S.A., WATKINS (1); corals of northern Ontario, CRANSWICK & FRITZ; corals of western Canada, WARREN & STELCK; tetracorals of England, MIDDLETON; the types of two German rugose corals, FLÜGEL, H.; a rugose coral of Czechoslovakia, LEWOWICKI; Rugosa of eastern U.S.S.R., [IVANIYA], also [IVANIYA (2)]; corals of eastern U.S.S.R. [IVANIYA (1)]; sequence of corals in the Kuzbas, [IVANIYA (3)]; Rugosa of the Sayano-Altai area, [IVANIYA (4)]; *Synaptophyllum* revised and a new genus of Rugosa, McLAREN; rugose corals of the U.S.A., WATKINS.

Silurian.—Spp. of *Actinostroma* revised and a subgen. n. from the Baltic described, FLÜGEL, E.; designation of lectotypes for *Monograptus fimbriatus* var. *similis*, *M. triangulatus* var. *major* and *M. communis* var. *rostratus*, OPINION 571; graptolites of Germany, JAEGER, also JAEGER (1); *Akidograptus ascensus* in Czechoslovakia, HORNÝ; graptolites in Czechoslovakia, HORNÝ (1); graptolites in Morocco, DESTOMBES, HOLLARD & WILLEFERT; graptolites from Malaya, JONES; graptolites in North Queensland, WHITE & STEWART; Melanoskeritoididae from Germany, POKORNÝ; a new genus of Favositidae from Kazakhstan, CHANG; cylindrical-arborescent *Favosites* spp. of Asia, U.S.A., etc., HAMADA (1); *Parafavosites* and worms, SCHNEDWOLF; distribution and sequence of coral faunas, HILL (1); corals of Siberia, [IVANOVA, SOSHKINA, ASTROVA & IVANOVA], also [SOSHKINA]; corals of China, CHEN.

Ordovician.—Hydroids of Poland, KOZŁOWSKI; graptolites of Germany and Reval, EISENACK; *Gymnograptus* spp. of Poland, URBANEK (1); graptolites from Malaya, JONES; graptolites of China, HSÜ; a new sp. of graptolite from China, HSÜ (1); graptolites in Utah, U.S.A., RIGBY; a graptolite of Minnesota, U.S.A., SLOAN; Halysitidae of Taimyr, U.S.S.R., BARSKAYA; corals of Siberia, [IVANOVA, SOSHKINA, ASTROVA & IVANOVA], also [SOSHKINA]; corals in Ontario, COLQUHOUN; corals of New Mexico, Arizona and Texas, HILL.

Cambrian.—A possible graptolite from the Crimea, [BOGACHEV]; scyphozoa from Siberia, [MIKROSHNIKOV]; a fossil of possible coral affinities from the U.S.A., FRITZ & HOWELL; †*Dickinsonia* may be an annelid, GLAESSNER (1).

Pre-Cambrian.—Coelenterates of South Australia, GLAESSNER; Coelenterata from Australia, Africa and England, GLAESSNER (2).

III.—SYSTEMATIC INDEX

Full references are given only in the case of a new subgenus or taxon of higher rank, the number being printed in "Small bold clarendon", e.g., 15.

HYDROZOA

Abietinaria abietina p. 59 fig., [NAUMOV].

†*Actinostroma* discussed pp. 99, 123, *A. (Actinostroma)* p. 125, *altum* p. 125, *australe* is possibly *papillosum* p. 167, *bifarium* p. 127 fig., *blumenthali* = *bifarium* p. 127, *clathratum* p. 129 fig., var. *confertum* = *clathratum* pp. 108, 129, var. *intricatum* = *papillosum* pp. 108, 167, var. *macroporum* = *Hermatostroma* pp. 108, 113, var. *polonicum* is possibly *papillosum* p. 108, *colymense* pp. 108, 120, *compactum* p. 134, *conglomeratum* = *Trupetostroma* pp. 108, 113, *consors* pp. 108, 120, *contextum* p. 135, *contortum* Gorsky = *Anostylostroma* pp. 108, 114, *buchanense* **nom. n.**

for *contortum* Ripper not Gorsky pp. 108, 183 Devonian Victoria Australia, *cuviniense* = *papillosum* pp. 108, 167, *crassepilatum* p. 137, *crassum* Yavorovsky = tabulate coral pp. 108, 114, *crassum* Lecompte p. 139, *dehornae* p. 140 fig., var. *constrictum* = *dehornae* p. 140, var. *densicolumnatum* possibly is *dehornae* p. 140, *densatum* possibly is *clathratum* pp. 108, 129, *derzavini* = *Hermatostroma* pp. 108, 119, *devonense* = *papillosum* pp. 108, 167, *distans* p. 142, *egregium* = *stellatum* pp. 108, 179, *expansum* p. 143, *fenestratum* = tabulate coral pp. 108, 114, *ferganense* = *papillosum* pp. 108, 167, *filitextum* p. 145, *franklinense* = *intertextum* pp. 108, 157, *frustulum* = *Anostylostroma* pp. 108, 114, *fungiforme* = *Anostylostroma* pp. 108, 114, *furcatipilum* = *Trupetostroma* p. 108 but *Anostylostroma* p. 115, *geminatum* p. 120, *A. grossum* p. 206, *grossum* var. *robustissimum* p. 208, *A. (A.) hebbornense* p. 146 fig., *ibridum* pp. 108, 209, *ignotum* p. 151, ? *A. indubium* pp. 108, 120, *A. infectum* p. 152, *ingens* p. 154, *inopinatium* = *Clathrodictyon* p. 115, *intermedium* p. 155, *intertextum* p. 157 fig., var. *suevicum* = *intertextum* p. 157, *irregular* = *papillosum* p. 109, *istokiense* [*istokense* (sic) p. 115] = *Stictostroma* pp. 109, 115, *stellatum* var. *italicum* possibly is *hebbornense* p. 146, *jeanetti* p. 109, *jurmanense* possibly is *infectum* p. 152, *karpinski* = *Anostylostroma* p. 115, *kiliani* p. 109, ? *A. krekevi*, ? *A. kuzbassicum* p. 121, *A. labecheiforme* p. 160, var. *uralicum* possibly is *labecheiforme* p. 160, *lamellatum* = *Anostylostroma* p. 115, ? *A. laskarevi* p. 121, *A. letournexi* p. 109, *tigeriense* p. 161, *malevski* = *A. (Densastroma) astroites* p. 196, *A. mamontovi* and var. *planus* = *hebbornense* p. 146, *matutinum* p. 163, *A. ? mingshankouensis* = *Labecheia* p. 115, *A. mirum* Parks p. 121, *mirum* Yavorovsky not Parks = *Trupetostroma* p. 116, *moldavancevi* = *toschemkense* p. 187, *moosense* = *Stromatoporella* p. 116, *multipilatum* p. 165, *multituberosum* a nom. nud. p. 109, *niagarensis* (= *whiteavesi* var. *niagarensis*) p. 166 fig., *nodulatum* = *Syringostroma* p. 119, *papillosum* p. 167, *parksii* = ? *Parallelopora* p. 116, *perforatum* = ? *Stromatopora* p. 116, *perlaminatum* possibly is *stellatum* p. 179, *perspicuum* p. 172 fig., *pexisum* p. 121, *piriformis* p. 174, *podolicum* = *A. (Densastroma) astroites* p. 196, *A. praecursum* = *Clathrodictyon* p. 116, *praesaleense* p. 209, *pseudosquamosum* = *Anostylostroma* p. 116, *regulare* p. 175, *reversum* p. 176, *rhodocladum* [as *rhodocladum* (sic) p. 109] pp. 109, 209, *ristigouchense* = *Syringostroma* p. 119, *rugosum* = *intermedium* p. 155, *salaricum* p. 177, *salvense* p. 209, *samskiense* p. 110, *schmidtii* possibly is *intertextum* p. 157, *septatum* and var. *robustum* possibly are *clathratum* p. 129, *sertiforme* = ? *Clathrodictyon* p. 117, *soenicum* = *verrucosum* p. 190, *squamosum* = *Anostylostroma* p. 117, *stellatum* p. 179 fig., vars. *maueri*, *nicholsoni* and *tuberculatum* = *stellatum* p. 179, var. *distans* is *A. distans* p. 142, var. *italicum* is *A. italicum* p. 110, *styliferum* p. 209, *tabulatum* = *clathratum* p. 129, var. *crassum* is *A. crassum* p. 139, *talovense* = *Hermatostroma* p. 119, *tenuicolumnum* p. 185, *tenuifilum* p. 186 fig., var. *cylindricum* possibly is *infectum* p. 152, *tenuissimum* is ? *A.* pp. 110, 121, *termieri* p. 209, *tokadiense* p. 209, *toschemkense* p. 187, *trautscholdi* = *Anostylostroma* p. 117, *trentonense* Ulrich & Everett is a sponge p. 117, *trentonensis* Weller not Ulrich & Everett is a Polyzoan p. 110, *tyrelli* p. 188, *uralicum* = *Gerronostroma* p. 117, *vastum* p. 189, *verrucosum* p. 190 fig., *vologdini* = ? *Actinostromaria* p. 117, *vulcanum* = *infectum* p. 152, *whiteavesi* is ? *A.* pp. 110, 122, var. *niagarensis* is *A. niagarensis* p. 166, *yunnanense* is ? *A.* pp. 110, 122, *A. (Densastroma) astroites* p. 196 fig., FLÜGEL, E.—*A.* p. 316, *crassepilatum* pp. 317, 335 fig., *devonense* p. 318, 336 fig., *dehornae* pp. 319, 336 fig., (*A. ?*) [*sic*] *fungiforme* pp. 320, 338 fig., *A. verrucosum* pp. 321, 339 fig., ZUKALOVA.

† ? *Actinostromaria vologdini* p. 117, spp. pp. 208–212, FLÜGEL, E.—*A.* p. 33, *tubulata* is a sp. of *Astrotylopsis* p. 37, HUDSON (1).

- †Actinostromidae p. 316, ZUKALOVA.
- †Actinostromina p. 34, *oppidana* p. 35 fig., *grossa* p. 35 fig., HUDSON (1).
- Aegina citrea* p. 119, FURNESTIN.—*A. citrea* p. 370, KRAMP.—*A. p.* 194, *citrea* pp. 61, 194 fig., KRAMP (1).—*A. citrea* p. 81, VANNUCCI.
- Aeginidae p. 194, key to genera p. 194, KRAMP (1).
- Aeginopsis laurenti* p. 472, GRAINGER.—*A. p.* 195, *laurenti* p. 195 fig., KRAMP (1).
- Aeginura* p. 195, *grimaldii* pp. 62, 195 fig., KRAMP (1).—*A. grimaldii* p. 61 fig., [NAUMOV].
- Aequorea conica* p. 360, *pensilis*, *macrodactyla* p. 361, KRAMP.—*A. p.* 165, key to spp. p. 165, *tenuis* p. 166 fig., *floridana* p. 166, *vitrina* p. 166 fig., *coerulea* p. 166, *albida* p. 166, *aequorea* pp. 37, 167 fig., *macrodactyla* pp. 38, 167 fig., *pensilis* p. 167 fig., sp. p. 39, KRAMP (1).—*A. aequorea* p. 9, KRAMP (2).—*A. australis* p. 256, KRAMP (3).
- Aequoreidae p. 165, key to genera p. 165, KRAMP (1).
- Agalmopsis elegans* p. 8 fig., UTINOMI.
- Agastira* p. 146, key to spp. p. 146, *mira* p. 146 fig., *rubra* p. 146 fig., KRAMP (1).
- Aglantha digitale* p. 471, GRAINGER.—*A. p.* 191, key to spp. p. 191, *digitale* pp. 56, 191 fig., *alata* p. 191 fig., KRAMP (1).—*A. digitale* p. 60 fig., [NAUMOV].
- Aglaophemia cupressina*, *delicula* p. 185, PENNYCUK.—*A. whiteleggi* p. 6 fig., UTINOMI.—*A. pluma* var. *typica* p. 307 fig., var. *parvula* p. 307 fig., var. *dichotoma* p. 308 fig., *latecarinata* p. 309 fig., VERVOORT.—*A. whiteleggi* p. 62, YAMADA.
- Aglaopheniidae key to genera p. 184, key to spp. p. 184, PENNYCUK.
- Aglaura hemistoma* p. 115, FURNESTIN.—*A. p.* 192, *hemistoma* pp. 57, 192 fig., KRAMP (1).—*A. hemistoma* p. 76, VANNUCCI.
- Aglauropsis* p. 175, key to spp. p. 176, *conanti* p. 176 fig., *jaris* p. 176 fig., KRAMP (1).
- Allopora maseleyana* p. 54 fig., [NAUMOV].
- Amphinema* p. 117, key to spp. p. 117, *dinema* p. 117 fig., *rugosum* pp. 13, 117 fig., *australis* p. 118 fig., *torrida* p. 118 fig., *krampi* p. 118 fig., *rubra* p. 118 fig., ? *A. sp.* p. 13 fig., KRAMP (1).
- †*Amphipora ramosa* pp. 286, 301 fig., CHEN.
- Amphisbetia furcata* p. 5 fig., UTINOMI.—*A. furcata* p. 59, YAMADA.
- Amphogona* p. 188, key to spp. p. 188, *apsteini* p. 188 fig., *apicata* pp. 54, 188 fig., KRAMP (1).
- Annatiara* p. 121, *affinis* pp. 14, 121 fig., KRAMP (1).
- †*Anostylostroma contortum*, *frustulum*, *fungiforme* p. 114, *karpinskyi*, *lamellatum* p. 155, *pseudosquamosum* p. 116, *squamosum* p. 117, *trautscholdi* p. 117, FLÜGEL, E.
- Antennella* key to spp. p. 176, *indivisa* p. 176, *secundaria* p. 176 fig., PENNYCUK.—*A. diaphana* forma *siliquosa* p. 286 fig., VERVOORT.—*A. secundaria* p. 59, YAMADA.
- Antennellopsis dofleini* p. 6 fig., UTINOMI.
- Anthomedusae p. 76, key to families p. 76, KRAMP (1).
- Arctapodema* p. 187, key to spp. p. 187, *antarcticum* p. 187 fig., *australe* p. 187 fig., *amplum* p. 188 fig., KRAMP (1).
- Aselomaris arena* (?) p. 163 fig., PENNYCUK.
- †*Astrotyloopsis* p. 35, a synonym of *Trypelostromaria* p. 32, *slovenica* p. 35 fig., *grabenensis* p. 36 fig., *circopora* p. 37 fig., *tubulata* p. 37 fig., HUDSON (1).
- †*Atelodictyon* p. 322, *moravicum* sp. n. pp. 322, 339 fig. Devonian Czechoslovakia, ZUKALOVA.
- †*Balatonia* p. 56, *kochi* p. 57, *B. ? sp. A. sp. n.* (sic) p. 59 fig. Trias Austria, FLÜGEL, E. & EBERHARD.
- Bathycodon pyramis* p. 82, KRAMP (1).
- Bineria fluminalis* p. 309 fig., MILLARD.—*B. key* to spp. p. 164, *australis* p. 164, *curvumbinensis* sp. n. p. 164 fig. Queensland, PENNYCUK.
- Blackfordia virginica* p. 343 fig., KRAMP.—*B. p.* 155, key to spp. p. 155, *manhattensis* p. 155, *virginica* p. 156 fig., KRAMP (1).
- Bonnevilliella grandis* p. 58 fig., [NAUMOV].
- Botryema* p. 183, key to spp. p. 183, *brucei* pp. 44, 183 fig., *ellinorae* p. 184 fig., KRAMP (1).—*B. brucei* p. 61 fig., [NAUMOV].
- Bougainvillia fulva* p. 341, KRAMP.—*B. p.* 107, key to spp. p. 107, *platygaster* pp. 9, 108 fig., *niobe* pp. 11, 110 fig., *macloviana* p. 107 fig., *pyramidata* p. 108 fig., *super-ciliaris* p. 108 fig., *principis* p. 108 fig., *britannica* p. 109 fig., *ramosa* p. 109 fig., *maniculata* p. 109, *carolinensis* p. 110 fig., *nordgaardii* p. 110 fig., *frondosa* p. 110 fig., *rugosa* p. 110 fig., *nigritella*, *simplex* p. 110, *multicilia*, *charcoti* p. 111, KRAMP (1).—*B. macloviana* p. 242 fig., *ramosa* p. 244 fig., MILLARD (1).—*B. frondosa* p. 52, *ramosa* p. 53, VANNUCCI.—*B. ramosa* p. 12 fig., WOOD, E. J. F. & ALLEN.
- Bougainvilliidae p. 104, key to genera p. 105, KRAMP (1).—*B. key* to genera p. 163, PENNYCUK.
- Bythotia* p. 125, *murrayi* pp. 18, 125 fig., KRAMP (1).
- Calycopsidae p. 124, key to genera p. 125, KRAMP (1).
- Calycopsis* pp. 18, 126, key to spp. p. 126, *simplex* pp. 19, 126 fig., *borchegrevinkii* pp. 19, 126 fig., *krampi* p. 126 fig., *bigelovi* pp. 19, 127 fig., *gara* p. 127 fig., *papillata* pp. 20, 127 fig., *typa* pp. 21, 127 fig., *chuni* pp. 23, 127 fig., *simulans* p. 20, *nematophora* p. 21, *valdiviae* p. 22, *speciation* p. 24, KRAMP (1).
- †*Calyxhydra* gen. n. pp. 221, 264, 270, type sp. (by original designation) *gemellithecata* p. 221 fig., *constricta* p. 223 fig., *irregularis* p. 224 fig., spp. n. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.
- Camella vilae-velebiti* pp. 149, 161, HADŽI.
- Campanularia* discussed p. 247, MILLARD (1).—*C. groenlandica* p. 56 fig., *chinensis* p. 57 fig., [NAUMOV].—*C. africana*, *delicula* p. 169, *johnstoni* p. 170, PENNYCUK.—*C. hincskii* p. 311 fig., *johnstoni* p. 312, VERVOORT.—*C. groenlandica* p. 54, YAMADA.
- Campanulariidae p. 146, key to genera p. 146, KRAMP (1).—*C. discussed* p. 247, MILLARD (1).—*C. key* to genera p. 169, PENNYCUK.
- Cannota* p. 133, *dodecantha* p. 133, KRAMP (1).
- Catabela* p. 122, *vesicarium* p. 122 fig., *multicirrata* p. 123 fig., KRAMP (1).
- Chitinodeudron bacciferum* p. 253 fig., *longicarpus* the type sp. of *Kystodeudron* p. 251, KOZŁOWSKI.
- Chlorohydra* discussed p. 446, *hadleyi* sp. n. p. 441 fig. New Jersey and Pennsylvania, FORREST.
- Chromatonema* p. 130, *rubrum* pp. 31, 130 fig., KRAMP (1).—*C. see* also *Psychogena*.
- †*Circopora* p. 20, *triadica* sp. n. p. 21 fig. Trias Austria, FLÜGEL, E. & EBERHARD.

- Cirrhitiara* p. 121, *superba* p. 121 fig., KRAMP (1).
Cirrhosolenia **gen. n.** (fam. Lovenellidae) p. 250, type sp. (by original designation) *polynema* p. 251 fig. Philippines and Java Sea, *tetranema* p. 253 fig. Strait of Malacca, etc., **spp. n.**, KRAMP Vidensk. Medd. Dansk naturh. Foren. Kbh. 121 1959.
Cladocarpus formosus p. 59 fig., [NAUMOV].—*C. ventricosus* p. 300 fig., VERVOORT.
Cf. Cladocoropsis mirabilis p. 71, THIEULOY.
Cladocoryne floccosa p. 300, MILLARD.—*C. floccosa* p. 159, PENNYCUK.
Cladonema p. 96, *radiatum* p. 96 fig., KRAMP (1).—*C. pacifica* p. 52 fig., [NAUMOV].—*C. pacifica* p. 194 fig., NAUMOV (1).
Cladonemidae p. 96, KRAMP (1).
†*Clathrodictyon inopinatum* p. 115, *praecursus* p. 116, *C. ? seriforme* p. 117, FLÜGEL, E.—*C. p.* 325, *paramygdaloides* pp. 325, 341 fig., ZUKALOVA.
†*Clathrodictyonidae* p. 323, ZUKALOVA.
Clavidae p. 99, key to genera p. 99, KRAMP (1).
Clytia discussed p. 248, MILLARD (1).—*C. cylindrica* p. 59, VANNUCCI.—*C. delicatula* p. 54, *edwardsi* p. 55, YAMADA.
Cnidonema a junior synonym of *Staurocladia* p. 97, KRAMP (1).
Cnidoscaphus marginatus p. 248 fig., VERVOORT.
Cnidostoma p. 99, *fallax* p. 99, KRAMP (1).—*C. fallax* p. 5, KRAMP (2).
Cnidotiara p. 114, *gotoi* pp. 12, 114 fig., KRAMP (1).
Codonida incert. sed. p. 93, KRAMP (1).
Codonorchis p. 124, *octaedrus* p. 124, KRAMP (1).
Colobonema p. 186, *sericeum* pp. 52, 186 fig., KRAMP (1).
Cordylophora lacustris p. 96 fig., GERMAINE.—*C. lacustris* p. 165 fig., PENNYCUK.
Corydendrium parasiticum p. 301, WILLARD.
Corymorpha sp. p. 299, MILLARD.—*C. gracilis* is *Euphysoira* p. 41 footnote, VANNUCCI.—*C. iyoensis* **spp. n.** p. 52 fig. Japan, YAMADA.
Coryne pusilla p. 52 fig., *princeps* p. 52 fig., [NAUMOV].—*C. (?) multidenticulata* p. 158, PENNYCUK.—*C. pusilla* p. 3 fig., UTINOMI.—*C. pusilla* p. 52, YAMADA.
Corynidae p. 77, key to genera p. 77, KRAMP (1).—*C.* key to genera p. 157, PENNYCUK.
Cosmetira p. 144, *pilosella* p. 144 fig., KRAMP (1).
Cosmetirella p. 144, *davisi* p. 144 fig., KRAMP (1).
Craspedacusta sowerbyi p. 97 fig., GERMAINE.—*C. sowerbyi* pp. 72, 96, HADŽI (1).—*C. p.* 172, *sowerbyi* p. 172, KRAMP (1).—*C. sowerbyi* p. 57 fig., PAX & MÜLLER.
Crossota p. 190, key to spp. p. 190, *brunnea* pp. 55, 190 fig., *rufobrunnea* p. 190 fig., *norvegica* p. 191 fig., *alba* pp. 56, 191 fig., KRAMP (1).—*C. rufobrunnea* p. 61 fig., [NAUMOV].
Cubaia p. 174, *aphrodite* p. 174 fig., KRAMP (1).
Cunina octonaria p. 370, KRAMP.—*C. p.* 199, key to spp. p. 199, *octonaria* pp. 69, 199 fig., *fouleri* p. 199 fig., *peregrina* pp. 70, 199 fig., *norvegica* p. 200 fig., *frugifera* pp. 69, 200 fig., *globosa* p. 201 fig., *duplicata* pp. 70, 201 fig., KRAMP (1).—*C. peregrina*, *octonaria* p. 14, KRAMP (2).—*C. octonaria* p. 82, VANNUCCI.
Cuninidae p. 199, key to genera p. 199, KRAMP (1).
Cunocantha sp. p. 119, FURNESTIN.
Cuspidella humilis p. 55 fig., [NAUMOV].—*C. costata* p. 235, VERVOORT.
Cuvieria p. 133, *carisochroma* p. 133 fig., *huxleyi* p. 134 fig., KRAMP (1).
Cyclocanna p. 144, *welshi* p. 144 fig., KRAMP (1).
†*Cylindrotheca* p. 230, *subtilis* **spp. n.** p. 232 fig. Ordovician Poland, KOZŁOWSKI.
Cytaeidae p. 99, KRAMP (1).
Cytasius tetrastyla p. 340, KRAMP.—*C. p.* 99, *tetrastyla* pp. 7, 99 fig., KRAMP (1).—*C. tetrastyla* p. 51, VANNUCCI.
Dendrocoryne secunda p. 3 fig., UTINOMI.
Dendronema stylodendron p. 96, KRAMP (1).
†*Densastroma subgen. n.* (of *Actinostroma*) p. 196, type sp. (by original designation) *Stromatopora astroites* p. 196 fig. Silurian Island of Oesel, FLÜGEL, E., Ann. naturhist. Mus. Wien 63 1959.
Dentitheca hertwigi p. 6 fig., UTINOMI.
†*Desmohydra gen. n.* pp. 227, 264, 270, type sp. (by original designation) *flexuosa* p. 227 fig., *zigzag* p. 227 fig., **spp. n.** Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.
Dichotomia p. 133, *cannoides* pp. 32, 133 fig., KRAMP (1).
Dicodonium p. 83, *floridana* p. 83 fig., *ocellata* p. 83, *jeffersoni* p. 83 fig., *punctatum* p. 84 fig., *adriaticum* p. 84 fig., KRAMP (1).
Diphasia key to spp. p. 191, *digitalis* p. 191, PENNYCUK.—*D. digitalis* p. 254 fig., *pectinata* p. 255 fig., *rosacea* p. 257 fig., *attenuata* p. 258 fig., VERVOORT.
Dipleurosoma p. 132, key to spp. p. 132, *typicum* p. 132 fig., *ochracea* p. 132 fig., *collapsa* p. 132 fig., "*D. ?*" *gemmifera* p. 156 fig., KRAMP (1).
Dipleurosomidae p. 131, key to genera p. 131, KRAMP (1).
†*Diplohydra gen. n.* pp. 240, 265, 271, type sp. (by original designation) *longihcata* p. 240 fig., *micro-pedunculata* p. 240 fig., *solida* p. 243 fig., ? *D. solida* p. 244 fig., *gonotheca* p. 245 fig., **spp. n.** Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.
Dipurena key to spp. p. 81, *strangulata* p. 81 fig., *halterata* p. 82 fig., *ophiogaster* p. 82 fig., *reesi* p. 82, KRAMP (1).
†*Disjunctopora dubia* p. 14, *D. ? actinostromoides* p. 16, FLÜGEL, E. & EBERHARD.
†*Disjunctoporidae* p. 14, FLÜGEL, E. & EBERHARD.
Distichopora p. 121, key to Indo-Pacific spp. p. 133, *violacea* p. 134 fig., *forma violacea* p. 140, *forma fisheri* p. 140 fig., *forma tenella* p. 140 fig., *gracilis* p. 144 fig., *coccinea* p. 147 fig., *fulvacea* p. 152 fig., *nitida* p. 153 fig., *irregularis* p. 159, *livida* p. 160 fig., *profunda* p. 162, *providentiae* p. 163 fig., *borealis* p. 165 fig., *serpens* p. 169, BOSCHMA.—*D. nitida*, *coccinea*, *violacea* p. 247, BOSCHMA (1).—*D. violacea* p. 4 fig., UTINOMI.
Dynamena key to spp. p. 191, *cornicina*, *crisioides*, *gibbosa*, *heterodonta*, *obliqua* p. 192, *quadridentata*, var. *elongata* p. 193, PENNYCUK.—*D. tubuliformis* p. 5 fig., UTINOMI.—*D. crisioides* p. 260 fig., *mayeri* p. 261 fig., VERVOORT.—*D. crisioides* p. 56 fig., YAMADA.
Ectopleura dumortieri p. 207 fig., AURICH.—*E.* key to spp. p. 88, *dumortieri* p. 88 fig., *minerva* p. 88 fig., *octagona* p. 88 fig., KRAMP (1).—*E. dumortieri* p. 40, VANNUCCI.

Eirene tenuis p. 351, *palkensis*, *ceylonensis* p. 352, *menoni* p. 353, *hexanemalis* p. 354, KRAMP.—*E.* p. 158, key to spp. p. 158, *viridula* p. 158 fig., *lactea* p. 159 fig., *pyramidalis* p. 159 fig., *gibbosa* p. 159, KRAMP (1).—*E. viridula* p. 8, KRAMP (2).—*E. brevigona* sp. n. p. 255 fig. off Kerteh, KRAMP (3).

Eirenidae p. 158, KRAMP (1).

Eleutheria p. 97, key to spp. p. 97, *dichotoma* p. 97 fig., *claparedi* p. 97 fig., KRAMP (1).

Eleutheriidae p. 96, key to genera p. 96, KRAMP (1).

†*Epalliohydra* gen. n. pp. 230, 264, 270, type sp. (by original designation) *adhaerens* sp. n. p. 230 fig. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

Eucheilota p. 153, key to spp. p. 153, *ventricularis* p. 154 fig., *maculata* p. 154 fig., *flavensis* p. 154, *paradoxa* p. 154 fig., *maasi* p. 154, *duodecimalis* p. 154 fig., *comata* p. 155, KRAMP (1).—*E. ventricularis* p. 7, KRAMP (2).—*E.* p. 243, ? *E. ventricularis* p. 244, *E. paradoxa*, ? *E. comata* p. 245, *E. tropica* sp. n. p. 247 fig. Nicobar and Philippine Islands, *menoni* sp. n. p. 248 fig. Nicobar, etc., *diademata* sp. n. p. 249 fig. Philippines, sp. juv. p. 250, KRAMP (3).—*E. ventricularis* p. 61 fig., VANNUCCI.

Eucodoniium p. 91, *brounei* p. 91 fig., KRAMP (1).—*E. brounei* p. 43 fig., VANNUCCI.

Eucopida incert. sed. p. 155, KRAMP (1).—*E.* p. 146, KRAMP (1).

Eudendriidae key to genera p. 167, PENNYCUK.

Eudendrium carneum p. 302 fig., ? *parvum* p. 304 fig., MILLARD.—*E. raneum* p. 54 fig., [NAUMOV].—*E.* key to spp. p. 167, *album* p. 167, *capillare* p. 168, PENNYCUK.—*E. racemosum* p. 3 fig., UTINOMI.—*E.* cf. *capillare* p. 218, VERVOORT.

Eugymnanthea p. 155, *inequilina* p. 155 fig., KRAMP (1).

Eulamedea see *Laomedea*.

Eumedusa p. 129, *birulai* p. 129 fig., KRAMP (1).

Euphysa flammea p. 470, GRAINGER.—*E.* key to spp. p. 85, *aurata* p. 85 fig., *flammea* p. 85 fig., *tentaculata* p. 85 fig., KRAMP (1).

Euphysilla p. 90, *pyramidata* p. 90 fig., KRAMP (1).

Euphysora bigelowi p. 340, KRAMP.—*E. furcata* pp. 4, 89 fig., *gracilis* p. 89 fig., *gigantea* p. 89 fig., KRAMP (1).—*E. gracilis* p. 41 footnote, VANNUCCI.

Eutira p. 123, *mayeri* pp. 14, 123 fig., KRAMP (1).

Eutima orientalis p. 357, *hartlaubi* nom. n. (for *orientalis* Hartlaub not Browne) p. 358 fig. *E. Africa*, KRAMP.—*E.* p. 160, key to spp. p. 160, *E. [Octorchis] gegenbauri* p. 161 fig., *E. mira* p. 161 fig., *variabilis* p. 161 fig., *gracilis* p. 162 fig., *coerulea* p. 162 fig., *gentiana* p. 162 fig., *cuclata* p. 162, KRAMP (1).—*E. mira* p. 63, VANNUCCI.

Eutimidae p. 160, key to genera p. 160, KRAMP (1).

Eutonina p. 162, key to spp. p. 163, *indicans* p. 163 fig., *scintillans* p. 163, KRAMP (1).

†*Flexihydra* gen. n. pp. 225, 264, 270, type sp. (by original designation) *undulata* sp. n. p. 225 fig. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

Garveia clevelandensis sp. n. p. 166 fig. Queensland, PENNYCUK.

Gastroblasta raffaelli is probably an abnormal *Phialidium* *hemisphaericum* p. 148, *ovalis* is a *Phialidium* p. 151, KRAMP (1).

Gemmaria globosa p. 52 fig., [NAUMOV].

Georginella diaphana valid pp. 45, 85, HADŽI (1).

†*Gerronostroma uralicum* p. 117, FLÜGEL, E.

Geryonia p. 192, *proboscoidalis* pp. 60, 192 fig., KRAMP (1).—*G.* [as *Gerionia* (sic)] *proboscoidalis*, p. 73, VANNUCCI.

Geryonidae p. 192, key to genera p. 192, KRAMP (1).

Gonionemus p. 174, *vertens* p. 174, KRAMP (1).—*G. vertens* p. 55 fig., [NAUMOV].—*G. depressum* p. 7 fig., UTINOMI.

†*Gonotheca* forma A p. 254 fig., forma B p. 256 fig., forma C p. 257 fig., forma D p. 257 fig., forma E p. 258 fig., forma F p. 258 fig., KOZŁOWSKI.

Gonothyrea bicuspidata p. 55, YAMADA.

Gossea faureae p. 11, FURNESTIN.—*G.* p. 176, key to spp. p. 176, *corynetes* p. 176 fig., *faureae* p. 176, *brachymera* p. 177 fig., KRAMP (1).

Gotoea p. 90, *similis* sp. n. pp. 5, 90 fig. St. Helena, KRAMP (1).

Grammaria stentor p. 57 fig., *abietina* p. 58 fig., [NAUMOV].—*G. serpens* p. 235 fig., VERVOORT.

Gymnangium hians p. 61, YAMADA.

Halammohydra discussed pp. 56, 90, HADŽI (1).—*H.* p. 203, *octopodides* p. 203 fig., *schulzei*, *vermiformis* p. 203, KRAMP (1).—*H. vermiformis*, *octopodides*, *schulzei* p. 330, *adherens* p. 331, SWEDMARK & TEISSIER.

Halammohydridae p. 203, KRAMP (1).

Haleciidae key to genera p. 173, PENNYCUK.

Halecium muricatum p. 58 fig., [NAUMOV].—*H.* key to spp. p. 173, *delicatulum* p. 173, *lighti* p. 173 fig., *sessile* p. 174 fig., PENNYCUK.—*H. lankesteri* p. 221 fig., *beantii* p. 224 fig., *halecinum* p. 225, *parvulum* p. 227 fig., *tenellum* p. 229 fig., VERVOORT.

Halicornaria hians, *longicornis* p. 186, PENNYCUK.—*H. longicauda* p. 298 fig., VERVOORT.

Halicereas minimum p. 368, KRAMP.—*H.* p. 181, *minimum* pp. 41, 181 fig., KRAMP (1).—*H. minimum* p. 61 fig., [NAUMOV].

Halicereidae p. 181, key to genera p. 181, KRAMP (1).

Halicera p. 182, key to spp. p. 182, *conica* p. 182 fig., *bigelowi* pp. 43, 182 fig., *racovitzae* p. 183 fig., KRAMP (1).

Halitholus cirratus p. 470, GRAINGER.—*H.* p. 119, key to spp. p. 119, *pauper* p. 119 fig., *cirratus* p. 119 fig., *intermedius* p. 119 fig., KRAMP (1).

Halitiera p. 114, *formosa* p. 115 fig., KRAMP (1).

Halitrepes maasi p. 368, KRAMP.—*H.* p. 183, *maasi* pp. 44, 183 fig., KRAMP (1).

Halmomises p. 169, *lacustris* p. 169, KRAMP (1).

Halocordyle key to spp. p. 159, *disticha* var. *australis* p. 160 fig., *wilsoni* p. 160 fig., PENNYCUK.—*H. disticha* var. *australis* p. 216, VERVOORT.—*H. disticha* p. 52, YAMADA.

Halopsis p. 143, *ocellata* p. 143 fig., KRAMP (1).

Halopteris key to spp. p. 177, *diaphana* p. 177, *polymorpha* p. 178, PENNYCUK.

Hebella key to spp. p. 188, *calcarata*, var. *contorta*, *costata*, *dysymmetra* var. *trigona* p. 188, PENNYCUK.—*H. scandens* p. 237 fig., var. *michaelseni* p. 238 fig., var. *contorta* p. 239 fig., *cylindrata* p. 241 fig., *michael-sarsi* p. 242 fig., *ritchiei* sp. n. p. 244 fig. W. Africa, VERVOORT.—*H. parasitica* p. 56, YAMADA.

- Helgicirra malayensis* p. 355, KRAMP.—*H.* p. 159, key to spp. p. 159, *schulzei* p. 159 fig., *cari* p. 160 fig., KRAMP (1).—*H. schulzei* p. 9, KRAMP (2).—*H. dandensis* p. 255, KRAMP (3).
- †*Heptastylis* p. 26, *aquilas* p. 28, *oregonensis* p. 29, *stromatoporoidea* p. 30 fig., FLÜGEL, E. & EBERHARD.
- †*Heptastylopsis* see *Spongiomorpha*.
- †*Hermatostroma macroporum* p. 133, *derzavini* p. 119, *talovense* p. 119, FLÜGEL, E.
- †*Heterastriidae* discussed p. 4, FLÜGEL, E. & EBERHARD.
- †*Heterastridium conglobatum conglobatum* p. 9, *conglobatum lobatum, conglobatum aplanatum* p. 10, FLÜGEL, E. & EBERHARD.
- Heterotira* p. 125, *anonyma* pp. 17, 125 fig., KRAMP (1).
- Hincsellia* key to spp. p. 189, *cylindrica* p. 189, PENNYCUK.—*H. cylindrica* p. 245 fig., var. *pustilla* p. 247 fig., VERVOORT.
- Homoenema* p. 184, *platygonum* p. 185 fig., KRAMP (1).
- Hybocodon prolifer* p. 216 fig., AURICH.—*H.* p. 86, *prolifer* p. 86 fig., *pendula* p. 87 fig., *unicus* p. 87 fig., *forbesi* p. 87 fig., KRAMP (1).
- Hydra* key to N. American spp. p. 446, FORREST.—*H. viridis* p. 94 fig., GERMAINE.—*H.* sp. p. 7 fig., MACAN.—*H. attenuata* p. 75 fig., PAETZOLD & TILGNER.
- Hydractinia diogenes* sp. n. p. 305 fig. Portuguese East Africa, *kaffraria* p. 307, MILLARD.—*H. allmani* p. 54 fig., [NAUMOV].—*H. epiconcha* p. 3 fig., UTINOMI.—*H.* sp. p. 217, VERVOORT.
- Hydractiniidae* p. 100, KRAMP (1).
- Hydrichthys boycei* p. 309, MILLARD.
- Hydrissa sodalis* p. 4 fig., UTINOMI.
- †“Hydrocorallinen (?) stöckchen” p. 73, FLÜGEL, E. & EBERHARD.
- Hydroctena salenskii* discussed pp. 65, 93, HADŽI (1).
- Hydroids key to Californian spp. p. 30, LIGHT.
- Hydromedusae key to Californian spp. p. 37, Gwilliam in LIGHT.
- Hydrorhiza p. 261 fig., KOZLOWSKI.
- Hypsorophus quadratus* p. 110, FURNESTIN.
- Idiella pristis* p. 252, VERVOORT.
- Idiellana pristis* p. 193, PENNYCUK.
- †*Idiostroma hunanense* pp. 286, 301 fig., CHEN.
- Irenium* p. 165, *quadratum* p. 165 fig., *teuscheri* p. 165 fig., KRAMP (1).
- †*Iregulatozora moluccana* p. 17, FLÜGEL, E. & EBERHARD.
- †*Jillua tubifera* p. 73, FLÜGEL, E. & EBERHARD.
- Kirchenpaueria pinnata* p. 252, MILLARD (1).—*K. pinnata forma elegantula* p. 289, VERVOORT.
- Köllikerina* p. 111, key to spp. p. 112, *fasciculata* p. 112 fig., *elegans* p. 112 fig., *maasi* p. 112 fig., KRAMP (1).—*K. ornata* sp. n. p. 229 fig. Ceylon, KRAMP (3).
- Krampella dubia* p. 141 fig., KRAMP (1).
- †*Kystodendron* gen. n. pp. 251, 265, 271, type sp. (by original designation) pp. 265, 271) *Chitinodendron longicarpus* p. 252 fig. Silurian Baltic, KOZLOWSKI Acta palaeont. polon. 4 3 1959.
- †*Labechiella mingshankouensis* p. 115, FLÜGEL, E.
- Lafosa fruticosa* p. 57 fig., [NAUMOV].—*L. fruticosa* p. 6 fig., UTINOMI.
- Lafocidae key to genera p. 187, PENNYCUK.
- Lafocina maxima* p. 56 fig., [NAUMOV].
- †*Lagenohydra* gen. n. pp. 245, 265, 271, type sp. (by original designation) *phragmata* sp. n. p. 248 fig. Ordovician Poland, KOZLOWSKI Acta palaeont. polon. 4 3 1959.
- †*Lamellata* gen. n. (fam. incert.) p. 60, type sp. (by original designation) *wähneri* sp. n. p. 61 fig. Rhaetic Austria, FLÜGEL, E. & EBERHARD Neues Jb. Geol. Paläont. Abh. 109 1 1959.
- Laodicea indica* p. 343, KRAMP.—*L.* p. 135, key to spp. p. 135, *undulata* pp. 33, 135 fig., *pulchra* p. 136 fig., *ocellata* p. 136 fig., *chapmani* p. 136, *neptuna* p. 136 fig., KRAMP (1).—*L. undulata* p. 6, KRAMP (2).—*L. minuscula* sp. n. p. 56 fig. Brazil, ? *L. undulata* p. 57, VANNUCCI.—*L.* see also *Ptychogena*.
- Laodiceidae p. 135, key to genera p. 135, KRAMP (1).
- Laomedea* p. 248, *angulata* p. 248, *loveni* p. 249, MILLARD (1).—*L. longissima* p. 57 fig., [NAUMOV].—*L. (Phialidium) pelagica* p. 313 fig., *L. (Obelia) bicuspidata, dichotoma* p. 315, *L. (Eulaomedea) pseudodichotoma* sp. n. p. 316 fig. W. Africa, VERVOORT.
- Leptomedusae p. 131, key to families p. 131, KRAMP (1).
- Leuckartiara hoepflii* p. 342, KRAMP.—*L.* p. 120, key to spp. p. 120, *octona* pp. 14, 120 fig., *nobilis* p. 120 fig., *breviconis* p. 120 fig., *grimaldi* p. 120, *abyssi* p. 121, KRAMP (1).—*L. hoepflii* p. 235 fig., KRAMP (3).—*L. octona* p. 167, PENNYCUK.
- Lictorella* key to spp. p. 189, PENNYCUK.
- Limnocyda congoensis* sp. n. p. 175 fig. Congo Basin, BOULLON.
- Limnomedusae p. 168, key to families p. 169, KRAMP (1).
- Linvillea* p. 82, *agassizi* p. 82 fig., KRAMP (1).
- Liriope tetraphylla, eurybia* p. 112, FURNESTIN.—*L. tetraphylla* p. 368, KRAMP.—*L.* p. 193, *tetraphylla* pp. 58, 193 fig., KRAMP (1).—*L. tetraphylla* p. 11, KRAMP (2).—*L. tetraphylla* p. 7 fig., UTINOMI.—*L. tetraphylla* p. 70, VANNUCCI.
- †*Lithopora koeneni* p. 22, FLÜGEL, E. & EBERHARD.
- Lizzella* p. 112, *hyalina, ocella* p. 112, KRAMP (1).
- Lizzia* p. 105, key to spp. p. 105, *blondina* p. 105 fig., *elizabethae* p. 105 fig., *fulgurans* p. 105 fig., *gracilis* p. 105, *octostyla* p. 106 fig., KRAMP (1).
- Lovenella* p. 152, key to spp. p. 153, *clausa* p. 153 fig., *cirrata* p. 153 fig., *bermudensis* p. 153 fig., KRAMP (1).—*L. cirrata* p. 8, KRAMP (2).—*L.* p. 243, ? *L. assimilis* p. 246, KRAMP (3).—*L. chiquitita* p. 250 fig., MILLARD (1).—*L. cirrata* p. 60, VANNUCCI.—*L. corrugata* p. 231 fig., VERVOORT.
- Lovenellidae p. 152, key to genera p. 152, KRAMP (1).—*L.* discussed p. 243, KRAMP (3).
- Lymnoria* a doubtful genus, *triedra* unrecognizable p. 106, KRAMP (1).
- Lytocarpia niger* p. 6 fig., UTINOMI.
- Lytocarpus philippinus* p. 186, *phomeiceus* p. 187, PENNYCUK.—*L. clarkei* p. 302 fig., VERVOORT.

- Macrorhynchia phoenicea* p. 5 fig., UTINOMI.—*M. phoenicea* p. 62, YAMADA.
- Madrepore gemmascens* validated p. 132, OPINION 574.
- Maeotias* p. 173, *inexpectata* p. 173 fig., KRAMP (1).
- Margelopsidae p. 92, KRAMP (1).
- Margelopsis haeckeli* p. 223 fig., AURICH.—*M. key* to spp. p. 92, *haeckeli* p. 92 fig., *gibbesi* p. 92 fig., *harilaubi* p. 92 fig., *australis* p. 93, KRAMP (1).
- Meliceritidae p. 134, KRAMP (1).—*M.* p. 238, KRAMP (3).
- Meliceritissa* p. 138, key to spp. p. 138, *clavigera* p. 139 fig., *mayeri* sp. n. p. 139 fig. Florida, *adriatica* p. 139, KRAMP (1).
- Meliceritoides* gen. n. (fam. Meliceritidae) p. 238, type sp. (by original designation) *centripetalis* sp. n. p. 239 fig. Philippines, KRAMP Vidensk. Medd. Dansk naturh. Foren. Kbh. 121 1959.
- Melicerium* p. 134, *octocostatum* p. 134 fig., *panocto* p. 135, KRAMP (1).
- Merga violacea* p. 341, KRAMP.—*M.* p. 115, key to spp. p. 116, *violacea* p. 116 fig., *tergestina* p. 116 fig., *reesi* p. 116 fig., KRAMP (1).—*M. tergestina* p. 320 fig., VANNUCCI & YAMADA.
- Millepora* spp. discussed p. 247, BOSCHMA (1).—*M. tenella* p. 4 fig., UTINOMI.
- †*Millepora* sp. p. 113 fig., PULLEY.
- †*Milleporella* p. 312, *sardoa* p. 312 fig., HUDSON (2).
- †*Milleporellidae* superfam. n. p. 311, HUDSON Geol. Mag. 96 4 1959.
- †*Milleporellidae* p. 312, HUDSON (2).
- †“*Milleporidium*” *fassani* p. 75, FLÜGEL, E. & EBERHARD.
- Mitrocoma* p. 143, *annae* p. 143 fig., *minervae* p. 143, KRAMP (1).
- Mitrocomella* p. 142, key to spp. p. 142, *brownei* p. 142 fig., *frigida* p. 142 fig., *polydiademata* p. 143 fig., *cruciata* p. 143 fig., KRAMP (1).
- Mitrocomidae p. 142, key to genera p. 142, KRAMP (1).
- Mitrocomium assimile* is probably a *Lovenella* p. 246, KRAMP (3).
- Mnestra* p. 95, *pararites* p. 95, KRAMP (1).
- Moerisia gangetica* sp. n. p. 363 fig. R. Ganges estuary, KRAMP.—*M.* p. 169, key to spp. p. 169, *lyonsi* p. 170 fig., *gangetica* p. 170, *pallasi* p. 170 fig., KRAMP (1).
- Moerisiidae p. 169, key to genera p. 169, KRAMP (1).
- Monobrachium parasiticum* p. 448 fig., NAUMOV (2).
- Monostaechas quadridens* p. 178 fig., PENNYCUK.
- Myriomena amboinense* p. 168, PENNYCUK.
- Narcomedusae p. 193, key to families p. 193, larvae on *Bougainvillea* [as *Bougainville* (sic)] *platygaster* p. 73, *Rhopalonema velatum* and *R. funerarium* p. 74, KRAMP (1).
- Nemerites cylindrica* p. 178, PENNYCUK.—*N. incerta* p. 290 fig., *perrieri* p. 292 fig., *ramosa* var. *plumularioides* p. 293 fig., *antennina* p. 297, VERVOORT.
- Nemopsis* p. 111, *bachei* p. 111 fig., *crucifera*, *heteronema* p. 111, KRAMP (1).
- Neoturris* p. 122, *pileata* pp. 15, 122 fig., KRAMP (1).—*N. bigelowi* sp. n. p. 237 Ceylon, KRAMP (3).
- Netocertoides* p. 133, *brachiatum* p. 133 fig., KRAMP (1).
- †*Nigriporella* sp. p. 142 fig., KONISHI.
- Niobia dendrotentaculata* p. 334 fig., BRINCKMANN.—*N.* p. 115, *dendrotentaculata* p. 115 fig., KRAMP (1).
- Obelia* sp. p. 108, FURNESTIN.—*O.* p. 146, spp. p. 147, sp. p. 147 fig., KRAMP (1).—*O.* sp. p. 6, KRAMP (2).—*O. bicuspidata* p. 249, *dichotoma*, *geniculata* p. 250, MILLARD (1).—*O.* key to spp. p. 170, *australis* p. 170, *bicuspidata* var. *picetii* p. 170 fig., *longicyatha*, *nodosa* p. 171, PENNYCUK.—*O. plana* p. 5 fig., UTINOMI.—*O.* hydroid p. 58, VANNUCCI.—*O. geniculata* p. 55, YAMADA.—*O.* see *Laomedea*.
- Oceania* p. 99, *armata* pp. 8, 99 fig., KRAMP (1).—*O. armata* p. 5, KRAMP (2).
- Octocannoides ocellata* p. 350 fig., KRAMP.
- Octogonade* p. 145, *mediterranea* p. 146, KRAMP (1).
- Octophialucium indicum* sp. n. p. 347 fig. Mergui Archipelago and Burma, spp. discussed p. 348, KRAMP.—*O.* p. 157, key to spp. p. 157, *funerarium* p. 36, 157 fig., *medium* p. 157 fig., sp. pp. 36, 157, KRAMP (1).
- Octorchis gegenbauri* p. 110, FURNESTIN.
- Ocotiara violacea* sp. n. p. 234 fig. Ceylon, KRAMP (3).
- Odessia maotica* forma *marina* p. 111, FURNESTIN.—*O.* p. 170, *maotica* p. 171 fig., KRAMP (1).
- Oliindias singularis* p. 366, KRAMP.—*O.* p. 172, *phosphorica*, var. *phosphorica*, var. *sambaguinensis* p. 173, var. *tenuis* p. 173 fig., *malayensis* p. 173, KRAMP (1).—*O. phosphorica* p. 10, KRAMP (2).—*O. formosa* p. 7 fig., UTINOMI.
- Oliindiidae p. 172, key to genera p. 172, KRAMP (1).
- Oonautes* p. 95, *hanseni* p. 95 fig., KRAMP (1).
- ? *Opercularella humilis* p. 175 fig., PENNYCUK.
- Ophiodissa caciniformis* p. 218 fig., VERVOORT.
- Orchistoma* p. 139, *pileus* pp. 34, 139 fig., *agariciforme* p. 140, “*O.*” *tentaculata* pp. 34, 140 fig., *graeffi* p. 140, KRAMP (1).—*O.* discussed p. 240, *tentaculata* and *graeffi* are spp. of *Orchistomella* p. 241, KRAMP (3).
- Orchistomella* gen. n. (fam. Meliceritidae) p. 241, type sp. (by original designation) *Orchistoma tentaculata* p. 241 Atlantic coast of N. America, *graeffi* p. 241, *applanata* sp. n. p. 242 fig. Philippines, KRAMP Vidensk. Medd. Dansk naturh. Foren. Kbh. 121 1959.
- Orthopyxis* key to spp. p. 171, *caliculata*, *compressa*, *crenata* forma *subtropica*, *delicata* p. 172, PENNYCUK.—*O. platycarpa* p. 5 fig., UTINOMI.—*O. caliculata* p. 54, YAMADA.
- Ostroumovia inkermanica* p. 364, KRAMP.—*O.* p. 171, *inkermanica* p. 171 fig., KRAMP (1).—*O. horii* p. 265 fig., UCHIDA & NAGAO.
- Otolohya vagans* p. 331, SWEDMARK & TEISSIER.
- Pachycordyle* p. 93, *weismanni* p. 94, *degeneratus* p. 94 fig., KRAMP (1).—*P.* p. 224, *globulosa* p. 225 fig. Philippines, *lineata* p. 225 fig. Bali, *conica* p. 226 fig. Gulf of Panama, spp. n., KRAMP (3).
- †*Palaeotuba* p. 232, *polycephala* p. 233 fig., *dichotoma* sp. n. p. 234 fig. Ordovician Poland, KOZLOWSKI.
- Pandea* p. 123, *conica* pp. 16, 123 fig., *rubra* p. 123 fig., KRAMP (1).—*P.* sp. juv. p. 233, KRAMP (3).
- Pandeid* gen. et sp. ind. p. 16, KRAMP (1).
- Pandecidae p. 113, key to genera p. 113, KRAMP (1).

Pandeopsis **gen. n.** (fam. Pandeidae) p. 232, type sp. (by original designation) *scutigera* **sp. n.** p. 232 fig. Gulf of Siam, etc., KRAMP Vidensk. Medd. Dansk naturh. Foren. Kbh. 121 1959.

Pantachogon rubrum p. 115, FURNESTIN.—*P.* 186, key to spp. p. 186, *haeckeli* pp. 51, 186 fig., *militare* pp. 52, 186 fig., *scotti* p. 186 fig., KRAMP (1).—*P. haeckeli* p. 61 fig., [NAUMOV].

Paragotaea p. 90, *bathybia* pp. 5, 91 fig., KRAMP (1).—*P. bathybia* p. 172 fig., RALPH (1).

Paragotoecidae **fam. n.** (superfam. ? Tubularoidea) p. 176, RALPH Proc. zool. Soc. Lond. 133 2 1959.

†*Parallelopora nodulatum* p. 119, *P. ? parksi* p. 116, FLÜGEL, E.

Paratiara p. 115, *digitalis* pp. 12, 115 fig., KRAMP (1).

Pegantha p. 197, key to spp. p. 197, *martagon* pp. 64, 197 fig., *laevis* pp. 66, 198 fig., *clara* pp. 66, 198 fig., *rubiginosa* pp. 67, 198 fig., *triloba* pp. 68, 198 fig., KRAMP (1).—*P. martagon*, *laevis*, *P. juv.* p. 13, KRAMP (2).

Pennaria p. 93, *pauper* **sp. n.** pp. 4, 93 fig. Cape Verde, *tiarella* p. 93 fig., *disticha* p. 93, KRAMP (1).—*P. disticha* var. *australis* p. 300, MILLARD.—*P. cavolinii* p. 3 fig., UTINOMI.

Pennariidae p. 93, KRAMP (1).

Perigonimus brevicornis p. 53 fig., *rubratum* p. 53 fig., *nemalophora* p. 53 fig., [NAUMOV].

Persa p. 189, *incololata* p. 189 fig., KRAMP (1).

Petasiidae p. 181, KRAMP (1).

Petasiella asymmetrica p. 256, KRAMP (3).

Petasis p. 181, *atavus* p. 181 fig., KRAMP (1).

Phialella p. 151, key to spp. p. 151, *quadrata* p. 152 fig., *falklandica* p. 152 fig., *parvigastera* p. 152, KRAMP (1).

Phialellidae p. 151, KRAMP (1).

Phialidium haemisphaericum p. 109, FURNESTIN.—*P.* p. 147, key to spp. p. 147, *phosphoricum* p. 147, *hemisphaericum* p. 148 fig., *languidum* p. 148 fig., *discoidum* p. 148 fig., *mccladyi* p. 149 fig., *simplex* p. 149 fig., *islandicum* p. 149 fig., *folleatum* p. 149 fig., *bicophorum* p. 149 fig., *globosum* p. 149 fig., *gelatinosum* p. 150 fig., *singularis* p. 150 fig., *iridescent* p. 150 fig., *brunescens* p. 150 fig., *noliformis* p. 151 fig., *ovalis* p. 151 fig., KRAMP (1).—*P.* see *Laomedea* and *Pseudoclytia*.

Phialopsis [as *Philopsis* (sic) p. 37] p. 160, *diegensis* pp. 37, 160 fig., KRAMP (1).

Phialuciidae p. 156, KRAMP (1).

Phialucium mbenga p. 345, *carolinae* p. 346, KRAMP.—*P.* p. 156, *carolinae* p. 156 fig., KRAMP (1).

†*Phragmohydra* **gen. n.** pp. 238, 264, 270, type sp. (by original designation) *articulata* **sp. n.** p. 238 fig. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

Phylactotheca caciniformis p. 174, PENNYCUK.

Physalia physalis p. 7 fig., LANE.—*P. physalis* var. *utriculus* p. 8 fig., UTINOMI.

Plotocnide p. 91, *borealis* p. 91 fig., *incerta* p. 91 fig., KRAMP (1).

Plumularia setacea p. 252, MILLARD (1).—*P.* key to spp. p. 179, *badia*, *halecioides* p. 179, *obliqua*, *pulchella*, *setacea*, *spinulosa* p. 180, *warreni* (?) p. 181 fig., *warreni* var. *pambanensis* p. 182 fig., *sp.* p. 183 fig., PENNYCUK.—*P. setacea* p. 60, *filicaulis* var. *japonica* p. 60 fig., YAMADA.

Plumulariidae key to genera p. 175, PENNYCUK.

Pochella p. 179, key to spp. p. 179, *polynema* p. 179 fig., *oligonema* p. 179 fig., KRAMP (1).

Podocoryne p. 100, key to spp. p. 100, *carnea* p. 101 fig., *harilaubi* p. 101 fig., *borealis* p. 101 fig., *minuta* p. 102 fig., *minima* p. 102 fig., *tenuis* p. 102 fig., *dubia* p. 102 fig., *areolata* p. 102, *polystyla* p. 103, *metensis* p. 103 fig., KRAMP (1).—*P. apicalis* **sp. n.** p. 228 fig. Strait of Malacca and Gulf of Siam, KRAMP (3).—*P. nasse* **sp. n.** p. 307 fig. Portuguese East Africa, MILLARD.—*P. minima* p. 49, VANNUCCI.

Polyorchis karafutoensis p. 56 fig., [NAUMOV].

Porpita porpita p. 9 fig., MACKIE.—*P. porpita* p. 8 fig., UTINOMI.

Proboscidiactyla ornata p. 367, KRAMP.—*P.* p. 177, key to spp. p. 178, *ornata* p. 178 fig., *stellata* p. 178 fig., *mutabilis* p. 178 fig., KRAMP (1).—*P. ornata* p. 67, VANNUCCI.

Proboscidiactylidae p. 177, key to genera p. 177, KRAMP (1).

Propachycordyle p. 94, *canalifera* p. 94, KRAMP (1).

Protiara p. 114, *haeckeli* p. 114 fig., *tetranema* p. 114, KRAMP (1).

Pseudoclytia pentata is an abnormal *Phialidium* p. 151 fig., forma *hexaradiata* is possibly *Phialidium hemisphaericum* p. 148, KRAMP (1).

Ptychogasteria p. 180, key to spp. p. 180, *polaris* p. 180 fig., *asteroides* p. 180, KRAMP (1).

Ptychogasteridae p. 180, KRAMP (1).

Ptychogena p. 137, key to spp. p. 137, *lactea* p. 137 fig., *antarctica* p. 137, *crocea* p. 137 fig., *hyperborea* p. 138 fig., *aurea* is probably *Chromatonema rubrum*, *longigona* is probably *Laodicea undulata* p. 138, KRAMP (1).

Pycnotheca mirabilis p. 184, PENNYCUK.—*P. mirabilis* p. 59, YAMADA.

Ransonia p. 190, *krampi* pp. 55, 190 fig., KRAMP (1).

Rathkea p. 103, key to spp. p. 103, *octopunctata* p. 103 fig., *formosissima* p. 104 fig., *africana* p. 104 fig., KRAMP (1).

Rathkeidae p. 103, KRAMP (1).

†*Rhabdohydra* **gen. n.** pp. 235, 264, 270, type sp. (by original designation) *tridens* **sp. n.** p. 235 fig. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

Rhacostoma p. 168, *atlanticum* p. 168 fig., KRAMP (1).—*R. atlanticum* p. 9, KRAMP (2).

Rhizorhagium navis **sp. n.** p. 244 fig. Cape Town Docks, MILLARD (1).

Rhopalonema velatum p. 114, FURNESTIN.—*R. velatum* p. 368, KRAMP.—*R.* p. 185, key to spp. p. 185, *velatum* pp. 47, 185 fig., *funerarium* pp. 50, 185 fig., KRAMP (1).—*R. velatum* p. 12, KRAMP (2).—*R. velatum* p. 75, VANNUCCI.

Rhopalonematidae p. 184, key to genera p. 184, KRAMP (1).

Russellia p. 129, *mirabilis* pp. 30, 129 fig., KRAMP (1).

Russelliidae p. 129, KRAMP (1).

Salacia key to spp. p. 193, *hexodon*, *tetracythara*, *tetracythara* var. p. 194, PENNYCUK.

Sarsia key to spp. p. 77, *tubulosa* p. 78 fig., *hargitti* p. 78 fig., *gemmaifera* p. 79 fig., *siphonophora* p. 79, *princeps* p. 79 fig., *prolifera* p. 79 fig., *eximia* p. 79 fig., *gracilis* p. 79 fig., *angulata* p. 80 fig., *barentsi* p. 80, *brachygaster* p. 80 fig., *condonophora* p. 81, KRAMP.—*S. eximia* p. 241, MILLARD (1).—*S. eximia* p. 39, VANNUCCI.

Sarsiella p. 82, *ocellata* p. 82 fig., *dinema* p. 83, KRAMP (1).

Scolionema suwaensis p. 365, KRAMP.—*S.* p. 174, *suwaensis* p. 174 fig., KRAMP (1).

Sertularella tricuspidata p. 59 fig., *gigantea* p. 59 fig., [NAUMOV].—*S.* key to spp. 194, *diaphana*, *quadridens* p. 195, *minuscule* p. 195 fig., *robusta* p. 195 fig., sp. p. 196 fig., PENNYCUK.—*S. sinensis* p. 5 fig., UTINOMI.—*S. formosa* p. 264 fig., *cylindritheca* p. 266 fig., *undulitheca* sp. n. p. 269 fig. W. Africa, *mediterranea* p. 272 fig., *gayi* p. 273 fig., VERVOORT.—*S. miuensis* p. 57, *diaphana* p. 58 fig., YAMADA.

Sertularia robusta p. 59 fig., [NAUMOV].—*S.* key to spp. p. 196, *borneensis* p. 197 fig., *distans* var. *gracilis*, *loculosa*, *minima* p. 197, *trigonostoma*, *turbinata* p. 198, PENNYCUK.—*S. turbinata* p. 275 fig., *ligulata* p. 277 fig., *dalmasi* p. 279 fig., *inflata* p. 281 fig., *trigonostoma* var. *alternata* var. n. p. 284 fig. W. Africa, VERVOORT.

Sertulariidae key to genera p. 190, PENNYCUK.

Sibogila pp. 26, 127, *geometrica* p. 28, subsp. *occidentalis* subsp. n. pp. 28, 129 fig. N. Atlantic, KRAMP (1).

Sminthea eurygaster p. 115, FURNESTIN.—*S. eurygaster* p. 368, KRAMP.—*S.* p. 187, *eurygaster* pp. 54, 187 fig., KRAMP (1).

Solanderia fusca p. 159, PENNYCUK.

Solmaridae p. 196, key to genera p. 196, KRAMP (1).

Solmaris corona, *leucostyla* p. 117, FURNESTIN.—*S.* p. 196, key to spp. p. 196, *leucostyla* p. 196 fig., *flavescens* p. 196 fig., *solmaris* p. 196 fig., *corona* p. 197 fig., *multilobata*, *vanhoffeni* p. 197, KRAMP (1).—*S.* juv. p. 14, KRAMP (2).

Solmissus sp. p. 119, FURNESTIN.—*S.* p. 202, key to spp. p. 202, *albescens* p. 202 fig., *marshalli* pp. 71, 202 fig., *incisa* pp. 72, 203 fig., KRAMP (1).—*S. marshalli* p. 15, KRAMP (2).

Solmundella bitentaculata p. 118, FURNESTIN.—*S. bitentaculata* p. 369, KRAMP.—*S.* p. 195, *bitentaculata* pp. 63, 195 fig., KRAMP (1).—*S. bitentaculata* p. 12, KRAMP (2).—*S. bitentaculata* p. 79, VANNUCCI.

†*Sphaeractinia* "kinzensis" p. 63, *S. rothpletzi* p. 76, FLÜGEL, E. & EBERHARD.

†*Sphaeractiniidae* p. 19, FLÜGEL, E. & EBERHARD.

Spirocodon saltatrix p. 7 fig., UTINOMI.

†*Spongiomorpha* p. 32, *acyclica* p. 34 fig., "*S. broilii*" p. 37, *S. (Heptastylopsis) dendroidea* p. 38, "*S. (H.) dendroformis*" p. 78 [= a coral], *S. gibbosa* p. 39 fig., *minor* p. 41, *ramosa* p. 43 fig., "*S. rhaetica*", *S. sanjozanensis* p. 46, *tenuis* p. 47, sp. p. 48, FLÜGEL, E. & EBERHARD.

†*Spongiomorphidae* p. 25, FLÜGEL, E. & EBERHARD.

Stauridiosarsia key to spp. p. 77, *producta* p. 80 fig., KRAMP (1).

Staurocladia p. 97, a senior synonym of *Cnidonema* p. 97, key to spp. p. 98, *vallentini* probably = *capensis* p. 98 fig., *charcoti* probably = *hodgsoni* p. 98 fig., KRAMP (1).

Staurocoryne heroni sp. n. p. 158 fig. Queensland, PENNYCUK.

Staurodiscus p. 140, *tetrastaurus* p. 140 fig., *heterosceles* p. 140, KRAMP (1).

Staurophora p. 138, *merlensi* p. 138 fig., KRAMP (1).

Steenstrupia rubra p. 111, FURNESTIN.—*S.* p. 85, ? *S.* sp. p. 6 fig., *S. nutans* p. 86 fig., KRAMP (1).

Stegopoma plicatile p. 56 fig., [NAUMOV].—*S. fastigiatum* p. 234 fig., VERVOORT.

†*Steineria* Hudson not Micoletzky re-named *Steinerina* p. 518, HUDSON.

†*Steinerina* nom. n. for *Steineria* Hudson not Micoletzky (fam. Milneporidiidae) p. 518, type sp. (by original designation) *Stromatopora romanica* p. 518 Jurassic Roumania, HUDSON Geol. Mag. 93 6 1956.

†*Stictostroma istokiense* [as *istokense* (sic)] p. 115] pp. 109, 115, FLÜGEL, E.

†*Stoliczka* a synonym of *Heterastridium* p. 9, *granulata* is *H. conglobatum conglobatum* p. 9, FLÜGEL, E. & EBERHARD.

Stomotoca p. 119, *pterothylla* p. 119 fig., KRAMP (1).—*S. dinema* p. 55, VANNUCCI.

†*Stromactinia triasica* an alga p. 80 fig., FLÜGEL, E. & EBERHARD.

†*Stromatopodium globosum* p. 66, FLÜGEL, E. & EBERHARD.—*S. globosum* p. 163, SY.

†*Stromatomorpha* p. 50, *californica* p. 51, "*S. delicata*", *S. rhaetica* p. 52, *styliifera* p. 54 fig., FLÜGEL, E. & EBERHARD.

†*Stromatopora* sp. pp. 286, 301 fig., CHEN.—*S. astroites* the type sp. of *Densastroma* pp. 108, 196, *S. ? perforatum* p. 116, FLÜGEL, E.—"*S.*" p. 82, *S. moluccana* a sp. of *Irregularopora* p. 17, *cainalli* p. 83, *porosa* p. 84, FLÜGEL, E. & EBERHARD.—*S. romanica* the type sp. of *Steinerina* p. 518, HUDSON.—*S.* p. 329, cf. *cooperi* pp. 329, 344, ZUKALOVA.

†*Stromatoporella moosense* p. 116, FLÜGEL, E.—*S.* p. 326, *eifeliensis* pp. 327, 342 fig., *frasnensis* sp. n. pp. 327, 343 fig. Devonian Czechoslovakia, ZUKALOVA.

†*Stromatoporellata mammillaris* p. 68, FLÜGEL, E. & EBERHARD.

†*Stromatoporellidae* p. 326, ZUKALOVA.

†*Stromatoporidae* p. 329, ZUKALOVA.

†*Stromatopora moluccana* a sp. of *Irregularopora* p. 17, FLÜGEL, E. & EBERHARD.

†*Stromatostroma triasica* p. 69, FLÜGEL, E. & EBERHARD.

Stylactella niotha sp. n. p. 162 fig. Queensland, PENNYCUK.

Stylactis p. 103, *hooperi* p. 103 fig., *pruvoti* p. 103 fig., KRAMP (1).

Stylaster profundiporus p. 4 fig., UTINOMI.

Syntheiidae key to genera p. 189, PENNYCUK.

Syntheicum key to spp. p. 189, *megatheicum* p. 189 fig., *patulum* p. 190, PENNYCUK.

†*Syringosphaeria* a synonym of *Heterastridium* p. 9, and *intermedia*, *medicotti*, *monticularia*, *monticularia aspera*, *plana*, *porosa*, *tuberculata*, and *verrucosa* are all *H. conglobatum conglobatum* pp. 9, 10, 87, FLÜGEL, E. & EBERHARD.

†*Syringostroma nodulatum* pp. 109, 119, *ristigouchense* p. 119, FLÜGEL, E.

Tetraplatia volitans p. 371 fig., *chumi* p. 374 fig., RALPH.

Tetrorchis p. 188, *erythrogaster* pp. 55, 189 fig., KRAMP (1).

Thamnostoma p. 106, *dibalia* p. 106 fig., *tetrella* p. 106, *russelli* p. 106 fig., sp. p. 107 fig., KRAMP (1).

Thecocarpus brevirostris, *phyleuma* p. 187, PENNYCUK.—*T. myriophyllum* var. *typica* p. 305 fig., var. *bedoti* p. 306 fig., VERVOORT.

Thuiaria thuja p. 60 fig., *decemserialis* p. 60 fig., [NAUMOV].

Thyroscyphus key to spp. p. 198, *bedoti* p. 198 fig., *camparvatus*, *sibogae* p. 198, PENNYCUK.—*T. ramosus* p. 250 fig., VERVOORT.

Tiarana p. 130, *rotunda* pp. 31, 130 fig., KRAMP (1).

Tiaranidae p. 130, key to genera p. 130, KRAMP (1).

Tiaricodon p. 170, *coeruleus* p. 170 fig., KRAMP (1).

Tiaropsidium roseum p. 343, KRAMP.—*T.* p. 145, *mediterraneum* p. 145 fig., *atlanticum* p. 145 fig., KRAMP (1).

Tiaropsis multicirrata p. 471, GRAINGER.—*T.* p. 144, *multicirrata* pp. 35, 145 fig., KRAMP (1).

Tima p. 163, key to spp. p. 163, *bairdi* p. 163 fig., *flavilabris* p. 164, *lucullana* p. 164 fig., KRAMP (1).

Toxorchis p. 140, key to spp. p. 140, *arcuatus* p. 141 fig., *kellneri* p. 141 fig., *brocksi* p. 141 fig., *polynema* **sp. n.** p. 34, 141 fig. W. Africa, KRAMP (1).—*T. polynema* p. 242, KRAMP (3).

Trachymedusae p. 179, key to families p. 179, KRAMP (1).

Tricyclusa sp. p. 506, VEVERS.

†*Trimerohydra* **gen. n.** pp. 217, 264, 270, type sp. (by original designation) *glabra* p. 217 fig., *annulata* p. 219 fig., **sp. n.** Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

†*Trupetostroma conglomeratum* p. 113, *furcatipilosum* p. 108 (but is *Anostylostroma* p. 115), *mirum* p. 116, FLÜGEL, E.

†*Trupetostromaria* a synonym of *Astrotylopsis* p. 32, *circoporea* p. 37, HUDSON (1).

Tubularia larynx p. 222 fig., AURICH.—*T. warreni* p. 299, MILLARD.—*T. larynx*, *warreni* p. 240, MILLARD (1).—*T. indivisa* p. 53 fig., [NAUMOV].—*T. crocea* ? p. 157, PENNYCUK.—*T. mesembryanthemum* p. 3 fig., UTINOMI.—*T.* sp. p. 216, VERVOORT.—*T. australis* p. 12 fig., WOOD, E. J. F. & ALLEN.

Tubulariidae p. 84, key to genera p. 84, KRAMP (1).

Turriopsis p. 100, *nutricula* pp. 9, 100 fig., KRAMP (1).—*T. nutricula* p. 47, VANNUCCI.

Valentinia p. 175, key to spp. p. 175, *falklandica* p. 175 fig., *gabrielae* p. 175 fig., *adherens* p. 175, KRAMP (1).

Veilella veilella p. 8 fig., UTINOMI.

Vogtia pentacantha p. 62 fig., [NAUMOV].

†*Xenohydra* **gen. n.** pp. 249, 265, 271, type sp. (by original designation) *labiata* **sp. n.** p. 249 fig. Ordovician Poland, KOZŁOWSKI Acta palaeont. polon. 4 3 1959.

Zanclea p. 94, *costata* pp. 6, 94 fig., KRAMP (1).—*Z. dubia* **sp. n.** p. 226 fig. Java Sea, KRAMP (3).—*Z.* key to spp. p. 159, PENNYCUK.—*Z. costata* p. 45, VANNUCCI.

Zancleidae p. 94, key to genera p. 94, KRAMP (1).

Zancleopsis p. 95, *dichotoma* p. 95 fig., KRAMP (1).

Zanclonia p. 124, *weldoni* p. 124 fig., KRAMP (1).

Zygocanna buitendijki p. 363, KRAMP.—*Z.* p. 168, *vagens* pp. 39, 168 fig., KRAMP (1).

†GRAPTOLITHINA

Commencing with Volume 97, 1960, the Graptolithina will be recorded in Section 14, Protochordata.

Abiesgraptus p. 154, *tenuiramosus* p. 157, *multiramosus* p. 164 fig., *longeramosus* **sp. n.** p. 167 fig. U. Ludlovian Thüringia, JAEGER.

Callograptus helmustakovi p. 538 fig., *boni* p. 538 fig., **sp. n.** Lower Carboniferous Bulgaria, SPASOV & NIKOLOV.

Climacograptus cf. *scalaris* p. 131 fig., *rectangularis* p. 131 fig., HORNÝ (1).—*C. venustus* **sp. n.** pp. 346, 349 fig. Ordovician China, *bicornis* p. 347, 350 fig., var. *peltifer* pp. 347, 350 fig., Hsü.—*C. retioloides* a sp. of *Gymnograptus* p. 298, URBANEK (1).

Colonograptus colonus p. 30 fig., URBANEK.

Cryptograptus tricornis pp. 175, 191 fig., Hsü.

? *Demirastrites convolutus* p. 131 fig., HORNÝ (1).

Desmograptus cancellatus p. 680 fig., SLOAN.

? *Dictyonema* sp. p. 103 fig., [BOGACHEV].

Didymograptus linealis **sp. n.** pp. 166, 181 fig. Ordovician China, *nodosus* pp. 166, 181 fig., Hsü.

Diplograptus gracilis neotype chosen p. 253 fig., *D.* ? sp. *proscula* p. 256 fig., EISENACK.

Glossograptus cf. *echinatus* pp. 171, 186 fig., Hsü.

Glyptograptus dentatus var. *intermedius* **var. n.** pp. 170, 185 fig. Ordovician China, Hsü.

Gymnograptus linnaeensis p. 280 fig., *retioloides* p. 298 fig., sp. p. 321 fig., URBANEK (1).

Isograptus chinghaiensis pp. 168, 182 fig., *curothecatus* pp. 168, 183 fig., **sp. n.** Ordovician China, *caduceus* mut. *nanus* pp. 169, 183 fig., Hsü.

Linograptus p. 133, *posthumus posthumus* p. 143 fig., *posthumus tenuis* **subsp. n.** p. 153 fig. L. Ludlovian Thüringia, JAEGER.—*L. posthumus tenuis* nom. nud. p. 137, JAEGER (1).

Loganograptus tsaidamensis **sp. n.** pp. 164, 179 fig. Ordovician China, cf. *gracilis* pp. 165, 179 fig., Hsü.

Monograptus fimbriatus var. *similis*, *triangulatus* var. *major*, and *communis* var. *rostratus* lectotypes designated, and *similis*, *triangulatus*, *major*, *communis* and *rostratus* placed on Official List of Specific Names p. 106, OPINION 571.—*M. cf. lobiferus* p. 131 fig., HORNÝ (1).—*M. hercynicus* p. 87 fig., *praehercynicus* **sp. n.** p. 92 fig. U. Ludlovian Thüringia, *uniformis* p. 94 fig., *kayseri* p. 99 fig., *ramstalsensis* **sp. n.** p. 101 fig. U. Ludlovian Thüringia, *aquabilis* p. 102 fig., *hemidon* **sp. n.** p. 105 fig. U. Ludlovian Thüringia, *microdon microdon* p. 107 fig., *microdon silesicus* **subsp. n.** p. 110 fig. U. Ludlovian Silesia, *uncinatus* p. 112 fig., *micropoma micropoma* p. 117 fig., *micropoma nannopoma* **subsp. n.** p. 122 fig. L. Ludlovian in boulders in Pleistocene Rügen, *deubeli* **sp. n.** L. Ludlovian Germany, *dubius thuringicus* **subsp. n.** p. 127 fig. M. Ludlovian Thüringia, JAEGER.

Orthograptus cf. *vesiculosus* p. 131 fig., sp. p. 131 fig., HORNÝ (1).

Paraglossograptus **gen. n.** (fam. Glossograptidae) pp. 171, 187, *regularis* pp. 172, 188 fig., *latus* pp. 173, 189 fig., **sp. n.**, *multifibratus* **sp. n.** pp. 174, 190 fig., var. *longus* **var. n.** pp. 175, 190 fig., Ordovician China, Mu MS. in Hsü Acta palaeont. Sinica 7 3 1959.

Petalolithus ovatoelongatus p. 131 fig., HORNÝ (1).

Pristiograptus sp. p. 131 fig., *jaculum* p. 131 fig., HORNÝ (1).—*P. gottlandicus* p. 12 fig., URBANEK.

Pseudoclimacograptus romanovskii var. *sinensis* **var. n.** pp. 171, 186 fig. Ordovician China, Hsü.

Rastrites longispinus p. 131 fig., HORNÝ (1).

? Retiolitid p. 258 fig., EISENACK.

Spirograptus spiralis p. 131 fig., HORNÝ (1).

- Tetraraptus harti* pp. 165, 180 fig., Hsü.
Trigonaraptus praelongus [as *praelongus* (sic)] p. 184 pp. 169, 184 fig., *ensiformis* pp. 169, 184 fig., Hsü.
Xenotheca klinostoma p. 257, EISENACK.

†DIPLEUROZOA

Dickinsonia costata considered an annelid and not a coelenterate p. 526, GLAESSNER.—*D.* is possibly an annelid p. 188, GLAESSNER (1).

SCYPHOZOA

- Atolla bairdii* p. 120, FURNESTIN.—*A. bairdii* p. 63 fig., [NAUMOV].
Aurelia aurita p. 24, KRAMP (2).—*A. aurita* p. 6 fig., MAADEN.—*A. limbata* p. 62 fig., [NAUMOV].—*A. aurita* p. 9 fig., UTINOMI.
†*Brooksella* [as *Brooksella* (sic)] *octolobata* p. 109 fig., [MIROSHNIKOV].
Cassiopsea andromeda p. 8, MAADEN.—*C. xamachana* p. 577 fig., SOUTHCOTT.
Catostylus tagi p. 25, KRAMP (2).
Cephea sp. p. 372, KRAMP.
Charybdea marsupialis p. 119, FURNESTIN.
Chirodropus gorilla p. 17 fig., KRAMP (2).
Chironex fleckeri p. 572 fig., SOUTHCOTT.
Chiropsalmus quadrumanus p. 79, GUEST.—*C. quadrumanus* p. 16 fig., KRAMP (2).
Chrysaora quinquecirrha p. 372, KRAMP.—*C. quinquecirrha* p. 23, KRAMP (2).
Coronomedusae polypoid generations discussed p. 582, NAUMOV (3).
Cyanea capillata p. 473, GRAINGER.—*C. capillata* p. 24, KRAMP (2).—*C. nozakii* p. 10 fig., UTINOMI.
Dactylometra quinquecirrha p. 575 fig., SOUTHCOTT.—*D. pacifica* p. 9 fig., UTINOMI.
Discomedusa lobata p. 24, KRAMP (2).
Drymonema dalmatina p. 25, KRAMP (2).
Halicystus [as *Halicystus* (sic)] *stejnegeri* p. 64 fig., [NAUMOV].
Mastigias papua p. 10 fig., UTINOMI.
Nausithoe punctata p. 120, FURNESTIN.—*N. punctata* p. 21, KRAMP (2).
Netrostoma setouchianum p. 10 fig., UTINOMI.
†*Paleosemaestoma geryonides* p. 294 fig., ZAHÁLKA.
Paraphyllina ransoni p. 21, KRAMP (2).
Pelagia noctiluca p. 22, KRAMP (2).—*P. panopyra* p. 10 fig., UTINOMI.
Periphylla hyacinthina p. 63 fig., [NAUMOV].
Periphyllopsis galathea sp. n. p. 257 fig. E. Africa, KRAMP (3).
Rhizostoma luteum p. 26 fig., KRAMP (2).
Sanderia malayensis p. 9 fig., UTINOMI.
Sasakiella cruciformis p. 9 fig., UTINOMI.
Semacostomae p. 849 fig., THIEL.
Stenoscyphus inabai p. 9 fig., UTINOMI.
Stephanoscyphus simplex p. 174 fig., *corniformis* p. 183 fig., KRAMP (4).—*S. simplex* discussed p. 582, sdp. p. 583 fig., NAUMOV (3).

Stygiomedusae gen. n. (near fam. Ulmaridae) p. 1529, type sp. (by monotypy) *fabulosa* sp. n. p. 1529 off Spain, RUSSELL Nature Lond. 184 4698 1959.

Tamoya bursaria p. 371, KRAMP.—*T. haplonema* p. 15, KRAMP (2).

ANTHOZOA

ALCYONARIA

- Acabaria japonica* p. 16 fig., *corymbosa* p. 16 fig., UTINOMI.
Acanthaxis p. 58, BAYER (1).
Acanthogorgia schrammi p. 7 fig., BAYER.—*A. tori* sp. n. p. 55 fig. Gulf of Suez, STIASNY.—*A. multispina* p. 17 fig., *japonica* p. 17 fig., UTINOMI.
Alcyonium adriaticum p. 45 fig., PAX & MÜLLER (1).—*A. gracilimum* p. 12 fig., UTINOMI.
†*Alcyonium* sp. p. 26 fig., POKORNY.
Anthelia formosana p. 304, UTINOMI (1).
Anthogorgia japonica p. 48 fig., STIASNY.
Anthomastus rylovi p. 64 fig., [NAUMOV].
Anthopleura dimorpha p. 17 fig., UTINOMI.
Asterospicularia laurae p. 305, UTINOMI (1).
Bebyrce hicksoni p. 51 fig., STIASNY.
Brandella rubra p. 54 fig., STIASNY.
Calicogorgia granulosa p. 16 fig., UTINOMI.—? *C.* [as ? *Calicogorgia* (sic)] *tenuis* p. 49 fig., STIASNY.
Calyptrophora japonica p. 18 fig., UTINOMI.
Cavernularia obesa p. 20 fig., UTINOMI.
Cespitularia stolonifera p. 305, UTINOMI (1).
†*Charnia* p. 1473, *masoni* p. 1473 fig., sp. p. 1473 fig., GLAESSNER (2).
†*Charniodiscus* p. 1473, GLAESSNER (2).
Chrysogorgia fewkesi forma *multiflora* p. 27 fig., *affinis* p. 29, BAYER.
Cladiella discussed p. 310, genoelectotype chosen *Lobularia sphaerophora* pp. 308, 311 fig., replaces *Sphaerella* Gray (q.v.) p. 311, a senior synonym of *Microspicularia* p. 311, *C. pachyclados* p. 308, UTINOMI (1).
Clavularia racemosa p. 11 fig., UTINOMI.—*C. racemosa*, *inflata* p. 303, UTINOMI (1).
Cornularia cornucopiae p. 54, ABEL.—*C. komaii* p. 11 fig., UTINOMI.
Dendronephthya argentea p. 19, *intermedia* p. 27, *kukenthali* p. 36, *colombiensis* p. 47, *guggenheimi* p. 53, *tuberculata* p. 54, *nipponica* p. 56, *aurea* p. 68, *aculeata* p. 72, *roemeri* p. 77, *novaezeelandiae* p. 86, *hicksoni* p. 91, *oata* p. 113, *clavata* p. 115, *kollikeri* p. 142, and *irregularis* p. 147 are all spp. of *Spongodes*, and *curvata* pars is *S. utinomii* p. 129, TIXIER-DURIVAUT & PREVORSEK.—*D. gigantea* p. 13 fig., *nipponica* p. 13 fig., *aurea* p. 13 fig., *cervicornis* p. 13 fig., *haberi* p. 13 fig., *acaulis* p. 14 fig., *disciformis* p. 14 fig., *flabellifera* p. 14 fig., *pectinata* p. 14 fig., *spinulosa* p. 14 fig., UTINOMI.
Diodogorgia nodulifera p. 6 fig., BAYER.
Discogorgia erythraensis sp. n. p. 53 fig. Gulf of Suez, STIASNY.
Echinogorgia p. 58, *flexilis* p. 56 fig., *pseudosassapo* p. 56 fig., BAYER (1).—*E. reticulata* p. 16 fig., UTINOMI.
Echinomuricea p. 58, *indomalacensis* p. 56 fig., BAYER (1).

- Echinoptilum macintoshi* p. 20 fig., UTINOMI.
- Ellisella barbadensis* p. 21 fig., *elongata* p. 23 fig., BAYER.
- E. junceoloides* **sp. n.** p. 56 fig. Gulf of Suez, *maculata* p. 58 fig., STIASNY.—*E.* see also *Junceella*.
- Eumuricea acervata* p. 26 fig., ROSSI.
- Eunephthya* (*Gersemia*) *rubiformis* p. 64 fig., [NAUMOV].
- Eunicea castelnaudi* p. 12, BAYER.—*E. humilis* p. 1, DEICHMANN & BAYER.
- †*Eunicea* **sp.** p. 26 fig., POKORNÝ.
- Eunicella verrucosa* p. 56, ABEL.
- Euplexaura erecta* p. 17 fig., UTINOMI.
- Gersemia* see *Eunephthya*.
- Gorgonella miniacea* p. 61 fig., *umbraculum* p. 62 fig., STIASNY.—*G. umbraculum* p. 18 fig., UTINOMI.
- Gorgonia flavida* a sp. of *Muriceopsis* p. 8, DEICHMANN & BAYER.—*G. adamsii* p. 28 fig., ROSSI.
- Heliopora coerula* p. 83 fig., MA.—*H. coerulea* p. 309, UTINOMI (1).
- Heteroxenia elisabethae* p. 305, UTINOMI (1).
- Iciligorgia schrammi* p. 6 fig., BAYER.
- Junceella hystrix* probably an *Ellisella* p. 27, BAYER.
- Leptogorgia stheno* p. 17 fig., *setacea*, *virgulata* p. 18, BAYER.—*L. alba* p. 31 fig., *pumicea* p. 32 fig., *flexilis* p. 35 fig., ROSSI.
- Lobularia sphaerophora* chosen as type sp. of *Cladiella* p. 311, UTINOMI (1).
- Lophogorgia pumicea*, *rathbunii* p. 18, *rubropurpurea*, *violacea* p. 19, BAYER.
- Melithaea flabellifera* p. 16 fig., var. *cylindrata* p. 16 fig., UTINOMI.
- Menella* p. 58, *rubescens* p. 56 fig., BAYER (1).
- Microspicularia digitulata* p. 12 fig., UTINOMI.
- †*Moltkia minuta* p. 211 fig., VOIGT.
- Muricea* discussed p. 12, *midas* **sp. n.** p. 12 fig. Surinam, BAYER.—*M. echinata* p. 20 fig., *purpurea* p. 22 fig., *austera* p. 23 fig., *robusta* p. 24 fig., ROSSI.
- Muricella arborea* p. 45 fig., *complanata* p. 45, *perramosa* p. 46 fig., *ramosa* p. 46 fig., *tenera* p. 47 fig., STIASNY.
- Muriceopsis sulphurea* p. 12, BAYER.—*M.* diagnosed p. 3, key to spp. p. 5, *sulphurea* p. 6 fig., *flavida* p. 8 fig., DEICHMANN & BAYER.
- Nephthea chabroli* p. 13 fig., UTINOMI.—*N. erecta* p. 309, UTINOMI (1).
- †*Nephthea* **sp.** p. 26 fig., POKORNÝ.
- Nidalia rigida* p. 12 fig., *grandiflora* p. 12 fig., UTINOMI.
- Pachyclavularia violacea* p. 11 fig., UTINOMI.—*P. violacea* p. 304, UTINOMI (1).
- Pacificogorgia elegans* p. 19 fig., BAYER.
- Paragorgia arborea* p. 65 fig., [NAUMOV].
- Paralemmalia thysoides* p. 309, UTINOMI (1).
- Paramuricea* p. 58, *placomus* p. 57 fig., *grandis* p. 56 fig., *echinata* p. 56 fig., BAYER (1).
- Parisis fruticosa* p. 63 fig., STIASNY.
- Pavonaria finmarchica* p. 66 fig., [NAUMOV].
- Pennatula fimbriata* p. 20 fig., UTINOMI.
- Phyllogorgia dilatata* p. 20, BAYER.
- Placogorgia* p. 54, *tribuloides* **sp. n.** p. 58 fig. Straits of Florida, *dendritica* p. 56 fig., *mirabilis* p. 61 fig., *tenuis* p. 61 fig., *atlantica* p. 61 fig., *rudis* p. 61 fig., *placoderma* p. 60 fig., BAYER (1).
- Plexaura flavida* p. 1, DEICHMANN & BAYER.
- Plexaurella dichotoma*, *grandiflora*, *pumilla* p. 11, BAYER.
- Plexauridae discussed p. 10, BAYER.
- Plexauroides rigida* p. 17 fig., *praelonga* p. 17 fig., *spinifera* p. 17 fig., UTINOMI.
- Plexauropsis* a junior synonym of *Pseudoplexaura*, spp. discussed p. 2, DEICHMANN & BAYER.
- Plumarella longispina* p. 65 fig., [NAUMOV].—*P. spinosa* p. 18 fig., UTINOMI.
- Primnoa resedaeformis* forma *pacifica* p. 66 fig., [NAUMOV].
- Primnoella divaricata*, *magelhaenica*, *murrayi* p. 29, *flagellum*, *polita*, *delicatissima* p. 30, BAYER.
- Primnois rigida* p. 30, BAYER.
- Pseudopterogorgia bipinnata* p. 20, BAYER.
- †*Pteridium* pp. 526, 527, GLAESSNER.—*P.* p. 1473, GLAESSNER (2).
- Pteroeides spinosum* p. 46 fig., PAX & MÜLLER (1).—*P. breviradiatum* p. 19 fig., *esperi* p. 19 fig., UTINOMI.
- Radicipes verrillii* p. 66 fig., [NAUMOV].
- †*Rangaea* p. 526, GLAESSNER.—*R. sp.* p. 1472, GLAESSNER (2).
- Renilla reniformis* forma *americana* p. 31, *mulleri* p. 31 fig., BAYER.
- Sarcophyton glaucum*, *boletiforme* p. 254, TIXIER-DURIVALT.—*S. glaucum* p. 12 fig., UTINOMI.—*S. ehrenbergi*, *acutangulum* p. 306, *moseri* p. 307, *glaucum* p. 307 fig., *tropheliophorum* p. 307, UTINOMI (1).
- Scirpearia erythraea* p. 58 fig., *dolfusi* **sp. n.** p. 59 fig. Gulf of Suez, STIASNY.—*S. rubra* p. 18 fig., UTINOMI.
- Sclerobelemon* p. 33, *theseus* **sp. n.** p. 33 fig. Trinidad and Surinam, BAYER.—*S. burgeri* p. 20 fig., UTINOMI.
- Scytalium splendens* p. 19 fig., UTINOMI.
- Sinularia gardineri*, *leptoclados* p. 253, *triaena* p. 254, TIXIER-DURIVALT.—*S. polydactyla* p. 11 fig., UTINOMI.—*S. polydactyla* p. 305 fig., *mayi* p. 305 fig., UTINOMI (1).
- Siphonogorgia dipsacea* p. 15 fig., *dofleini* p. 15 fig., UTINOMI.
- Solenopodium marquesarum* p. 309 fig., UTINOMI (1).
- Sphaerella* Gray a junior homonym of *S. Sommerfelt* and *S. Conrad* p. 311, and replaced by *Cladiella* Gray p. 311, UTINOMI (1).
- Spongodes suesiana* p. 254, TIXIER-DURIVALT.—*S. p. 1*, *saugnyii* p. 14 fig., *argentea* p. 19 fig., *moseri* p. 21 fig., *mortenseni* **sp. n.** p. 22 fig. E. Asia, *intermedia* p. 27 fig., *celosia* p. 31 fig., *kukenthali* p. 36 fig., *fusca* p. 40, *robusta* p. 42 fig., *flava* p. 45, *colombiensis* p. 47 fig., *semperi* p. 49 fig., *guggenheimi* p. 53 fig., *tuberculata* p. 54 fig., *nipponica* p. 56 fig., *hemprichi* p. 58 fig., *gigantea* p. 63 fig., *aurea* p. 68 fig., *aculeata* p. 72 fig., *roemeri* p. 77 fig., *mucronata* p. 81 fig., *novaezeelandiae* p. 86 fig., *hicksoni* p. 91 fig., *spongiosa* p. 96 fig., *echinata* **sp. n.** p. 101 fig. off S. China, *carnea* p. 105 fig., *doederleini* p. 110, *pumicea* p. 11 fig., *ovata* p. 113 fig., *clavata* p. 115 fig., *mayi* p. 119 fig., *studerii* p. 120 fig., *spinifera* p. 122 fig., *hadzii* **sp. n.** p. 124 fig. Madagascar, *utinomii* **sp. n.** p. 129 fig. Gulf of Tadjourah, *suesiana* p. 133 fig., *harmeyeri* p. 137 fig., *kollikeri* p. 142 fig., *irregularis* p. 147, TIXIER-DURIVALT & PREVORSEK.

†*Spongodes* [as *Spogodes* (sic)] sp. p. 26 fig., POKORNÝ.
Stachyptilum superbum p. 20 fig., UTINOMI.
Stereonephthya rubriflora p. 15 fig., *japonica* p. 15 fig., UTINOMI.

Stylatula p. 37, cf. *brasiliensis*, *diadema* sp. n. p. 38 fig. Surinam, BAYER.

Suberogorgia koellikeri p. 44 fig., STIASNY.

Teleso rüsei p. 3 fig., BAYER.

Thesea p. 14, *antiope* sp. n. p. 14 fig. Brazil, *bicolor*, *gracilis* p. 17, BAYER.—*T. flexilis* p. 60 fig., BAYER (1).

Thouarella acanthina p. 30, BAYER.

Trachymuricea p. 58, *hirta* p. 56 fig., *kükenenthalii* p. 56 fig., BAYER (1).

Tripalea clavaria p. 7, BAYER.

Tubipora musica p. 11 fig., UTINOMI.—*T. musica* p. 304, UTINOMI (1).

Villogorgia p. 58, *zimmermani* p. 56 fig., *nigrescens* p. 56 fig., BAYER (1).

Virgularia presbytes p. 37 fig., *kophameli* p. 37, BAYER.—*V. gustaviana* p. 19 fig., UTINOMI.

Xenia hicksoni p. 11 fig., UTINOMI.

†TABULATA

Acanthohalysites sp. pp. 13, 15 fig., HAMADA.

Alceolites p. 56, *suborbicularis* p. 57 fig., CRANSWICK & FRITZ.—*A. suborbicularis* p. 14, [IVANIYA (1)].—*A. vallorum* pl. 5, cf. *multiaperforatus* pl. 19, WARREN & STELCK.

Aulocystis spinosus sp. n. pp. 291, 308 fig. Devonian China, CHEN.—*A. p. 795*, *multicystosa* p. 795 fig., *crassimurata* p. 795 fig., *magnispina* p. 795 fig., spp. n., *jacksoni* p. 796 fig., *alectiformis* p. 796 fig., subsp. *reptata* subsp. n. p. 796 fig., subsp. *dubia* subsp. n. p. 796 fig., *stamni* sp. n. p. 797 fig., *parva* sp. n. p. 797 fig., *alpenensis* sp. n. p. 797 fig., *ramosa* p. 797 fig., *fenestrata* p. 798 fig., subsp. *problematica* subsp. n. p. 798 fig., *commensalis* sp. n. p. 799 fig., *cooperi* sp. n. p. 799 fig., *dichotoma* p. 800 fig., *minuta* sp. n. p. 800 fig., subsp. *parallela* subsp. n. p. 801 fig., Devonian Michigan, WATKINS (1).

Aulopora heckeri pp. 37, 98 fig., [GHEKKER].—*A. sp. pl. 8*, *serpens* pl. 13, [IVANOVA].—*A. cf. conferta* pl. 15, sp. pl. 19, sp. A. pl. 20, WARREN & STELCK.—*A. p. 802*, *erecta* the type sp. of *Pachyphragma* p. 801, *buccinata* sp. n. p. 802 fig., *microbuccinata* sp. n. p. 802 fig., *crassata* p. 803 fig., *gregaria* sp. n. p. 803 fig., *conferta* p. 804 fig., *socialis* p. 804 fig., Devonian Michigan, WATKINS (1).

Auloporidae p. 794, WATKINS (1).

Auloporinae p. 794, WATKINS (1).

Bayhaum gen. n. (fam. Auloporidae) p. 99, type sp. (by original designation) *meriamorum* sp. n. p. 100 fig. Permian California, LANGENHEIM & MCCUTCHEON.

Calapocia p. 15, sp. p. 15 fig., HILL.

Catenipora rubra pl. 12 fig., *escharoides* pl. 13 fig., sp. pls. 13, 15 fig., *elegans* pl. 14 fig., HAMADA.

Cladochonus sp. pls. 8, 17, [IVANOVA].—*C. p. 804*, *antiquus* p. 805 fig., WATKINS (1).

Cladopora p. 59, key to Siberian Devonian spp. p. 107, *rectilineata* p. 62 fig., *cylindrocellularis* p. 64 fig., [CHUDINOVA].—*C. p. 58*, *rimosa* p. 59 fig., *robusta* p. 59 fig., *roemeri* p. 60 fig., CRANSWICK & FRITZ.

Coenites sp. pls. 5, 8, 15, WARREN & STELCK.

Cyrtophyllum [as *Cyrthophyllum* (sic)] sp. p. 192 fig., [SOSHKINA].

Dendropora (*Trachypora*? [sic]) sp. pl. 15, WARREN & STELCK.

Emmonsia p. 53, *emmonsi* p. 54 fig., *epidermata* p. 55 fig., *tuberosa* p. 55 fig., CRANSWICK & FRITZ.

Eofletcheria sp. p. 192 fig., [SOSHKINA].

Favosites p. 47, cf. *alpenensis alpenensis* p. 47 fig., *clausus* p. 48 fig., *concapus* p. 49 fig., cf. *dumosa* p. 50 fig., var. *parva* var. n. p. 51 fig. M. Devonian Canada, *intertextus* p. 52 fig., *turbatus* p. 52 fig. M. Devonian Canada, CRANSWICK & FRITZ.—*F. sp. p. 38* fig., [GHEKKER].—*F. hidsensis* p. 208 fig., cylindrical-arborescent spp. listed p. 204, HAMADA (1).—*F. sp. p. 192* fig., [SOSHKINA].—*F. sp. pl. 1*, *limitaris* pls. 2, 5, cf. *alpenensis* pl. 3, WARREN & STELCK.

Granulidictyum subgen. n. (of *Pleurodictyum*) p. 308, type sp. (by original designation) *P. granuliferum* p. 307 fig. M. Devonian Germany, SCHINDEWOLF Abhandl. mat. naturw. Kl. Akad. Wiss. Liter. Jahr. 1958 6 1959.

Halysites catenularius pl. 12 fig., *labyrinthicus* pls. 13, 15 fig., HAMADA.—*H. sp. p. 192* fig., [SOSHKINA].

Holacanthopora p. 147, LE MAÎTRE.

Michelinia tenuisepta p. 2374 fig., LAFUSTE.

Monilopora antiquus a sp. of *Cladochonus* p. 805, WATKINS (1).

Nyctopora p. 16, sp. p. 16 fig., HILL.

Pachyphragma gen. n. (fam. Auloporidae) p. 801, type sp. (by original designation) *Aulopora erecta* p. 801 fig., *cylindratum* sp. n. p. 801 fig., *concentricum* sp. n. p. 801 fig., Devonian Michigan, WATKINS J. Paleont. 33 5 1959.

Pachypora discussed p. 201, HAMADA (1).

Palaearea lopatini p. 192 fig., [SOSHKINA].

Palaeofavosites forbesiformis var. *changii* var. n. pp. 287, 303 fig., *paulus* var. *sinensis* var. n. pp. 288, 304 fig., Silurian China, CHEN.—*P. p. 11*, *okulitchi* p. 11, *okulitchi* ? p. 11 fig., *proliferus* p. 12, *capax*, *groenlandicus*, *nodosus*, *arcticus* p. 13, *poulsoni*, *asper* pp. 13, 14, *transiens*, *kirki* p. 14, HILL.

Parafavosites discussed p. 314, *ferganensis* p. 315 fig., *germanus* p. 316 fig., SCHINDEWOLF.

Parastriatopora p. 45, key to Siberian Devonian spp. p. 107, *rhizoides* p. 46 fig., *ichernychevi* p. 49 fig., [CHUDINOVA].

Parastriatoporella gen. n. (fam. Thamnoporidae) p. 50, type sp. (by author's designation) *Striatopora immota* p. 50 Devonian Arkansas, *oklahomensis* pp. 28, 51 fig., *religiosa* pp. 28, 51 fig., [CHUDINOVA] Trav. Inst. paléont. Acad. Sci. U.R.S.S. 73 1959.

Parastriatopora subfam. n. (of Thamnoporidae) p. 44, [CHUDINOVA] Trav. Inst. paléont. Acad. Sci. U.R.S.S. 73 1959.

Peridictyum gen. n. p. 310, type sp. (by original designation) *Pleurodictyum petrii* p. 308 fig. Lower Devonian Germany, SCHINDEWOLF Abhandl. mat. naturw. Kl. Akad. Wiss. Liter. Jahr. 1958 6 1959.

Pleurodictyum p. 61, *convexum* p. 62 fig., CRANSWICK & FRITZ.—*P. p. 147*, LE MAÎTRE.—*P. saourense*, *rosaceum*, *maurelaticum* p. 2376, spp. n. Devonian N. Africa, sp. p. 2377, LE MAÎTRE (1).—*P. problematicum* pp. 291, 301 fig., *styloporum* p. 291 fig., sp. p. 305 fig., *granuliferum* the type sp. of *Granulidictyum* p. 307 fig., *petrii* the type sp. of *Peridictyum* p. 308 fig., SCHINDEWOLF.

Plicatomurus **gen. n.** (fam. Favositidae) p. 27, type sp. (by original designation) *solidus* p. 29 fig., *bogimbais* p. 30 fig., *vagus* p. 31 fig., *parvus* p. 32 fig., **spp. n. U.** Silurian Kazakhstan, CHAO Paleont. Zhurn. 1959 3 1959.

Reuschia p. 17, sp. p. 17 fig., HILL.

Roemeria p. 148, LE MAÎTRE.

Striatopora p. 52, *imnota* the type sp. of *Parastriatoporella* p. 50, *oklahomensis* and *religiosa* spp. of *Parastriatoporella* p. 51, key to Siberian Devonian spp. p. 107, *petzi* p. 55 fig., *tshichatschewi* p. 57 fig., [CHUDINOVA].

Striatoporinae p. 51, [CHUDINOVA].

Syringopora cf. *distans* p. 128, CONIL.—S. p. 63, cf. *tabulata* p. 63 fig., CRANSWICK & FRITZ.—S. sp. p. 118, KOLOSÁRY (1).—S. **sp. n.** [sic] ex group *reticulata* pp. 25, 28, Hill in THOMAS, G. A.—S. p. 805, *intermedia* p. 805 fig., *ehleri* **sp. n.** p. 806 fig. Devonian Michigan, WATKINS (1).

Syringoporella (?) *multisolenia* **sp. n.** pp. 288, 305 fig. Silurian China, CHEN.

Syringoporinae p. 805, WATKINS (1).

Thamnopora p. 66, key to Siberian Devonian spp. p. 108, *elegantula* **sp. n.** p. 71 fig., *reticulata* p. 72 fig., subsp. *reticulata* p. 73 fig., subsp. *bona* **subsp. n.** p. 77 fig., *helenae* **sp. n.** p. 82 fig., *tumefacta* p. 84 fig., *khalfini* p. 85 fig., *alta* p. 86 fig., *kuznetskiensis* p. 92 fig., *beliakovi* p. 94 fig., *proba* p. 98 fig., *densa* **sp. n.** p. 102 fig., *compacta* **sp. n.** p. 104 fig., *rudis* **sp. n.** p. 105 fig., Devonian Siberia, [CHUDINOVA].—*T.* discussed p. 201, *cervicornis* p. 208 fig., HAMADA (1).—*T. cervicornis* p. 15, [IVANIYA (1)].—*T.* sp. pls. 15, 23, cf. *polyforata* pl. 20, cf. *cervicornis* pl. 20, WARREN & STELCK.

Thamnoporidae p. 44, [CHUDINOVA].

Thamnoporina p. 43, [CHUDINOVA].

Thamnoporinae p. 66, [CHUDINOVA].

Theostegites bouchardi pp. 290, 307 fig., CHEN.

Tollina diagnosed p. 89, *uarsanofievae* p. 90 fig., *taimyrica* p. 92 fig., *arctica* p. 93 fig., *polaris* p. 95 fig., **spp. n.** Ordovician Taimyr, BARSKAYA.—*T. keyserlingi* p. 192 fig., [SOSHKINA].

Trachypora ? (sic) sp. pl. 15, WARREN & STELCK.

Troedsonites multitabulatus pp. 289, 305 fig., *wonghsiangensis* pp. 289, 306 fig., **spp. n.** Silurian China, CHEN.

ZOANTHARIA

Acanthastraea [as *Acanthastrea* (sic)] *echinata* p. 67 fig., *hemprichii* p. 67 fig., MA.

†*Acanthocyathus* sp. p. 7 fig., SILVA.

†*Acanthophyllum* p. 141, cf. *fibratum* p. 141 fig., **spp. p.** 142 fig., MIDDLETON.

†*Acinophyllum* **gen. n.** (fam. Phillipsastraeidae) p. 22, type sp. (by original designation) *Eridophyllum simcoense* p. 24 fig. Devonian Canada, *stramineum* p. 25 fig., *baculoidium* p. 27 fig., *camelli*, *crassiseptatum*, *fasciculum* p. 27, *occidentis*, *A. ? rectiseptatum* p. 28, McLAREN, Bull. Geol. Surv. Canada 48 1959.

Achelia horrescens p. 78 fig., NEMENZO.

†*Acyrophylum* p. 32, *oneidaense* p. 33 fig., CRANSWICK & FRITZ.

Acropora spp. discussed p. 246, BOSCHMA (1).—*A. conferta* p. 6 fig., *symmetrica* p. 7 fig., *arcuata* p. 7 fig., *reticulata* p. 7 fig., *leptocyathus* p. 7 fig., *palifera* p. 8 fig., *tizardi* p. 8 fig., *prostrata* p. 8 fig., *corymbosa* p. 8 fig.,

irregularis p. 8 fig., *abrotanoides* p. 8 fig., *hystrix* p. 8 fig., *compressa* p. 8 fig., *hyacinthus* p. 9 fig., *humilis* p. 9 fig., *pectinata* p. 9 fig., MA.

†*Acrosmilina depressa* p. 165 fig., SUCIĆ.

†*Actinastraea furcata* p. 164 fig., SUCIĆ.

Actinauge chilensis **sp. n.** p. 30 fig. Chile, CARLGRÉN.

Actinia equina equina p. 21, ABEL.—*A. pluvia* the type sp. of *Phymanthea* p. 17, CARLGRÉN.—*A. equina* p. 21 fig., UTINOMI.

Actinian larva p. 90 fig., JÄGERSTEN.

Actinostola intermedia p. 29, CARLGRÉN.

Agaricia agaricites p. 15 fig., *ponderosa* p. 16 fig., *fragilis* p. 16 fig., MA.

Aiptasiomorpha elongata p. 33, CARLGRÉN.

†*Alleyria* see *Syringaxon*.

Alveopora verrilliana p. 35 fig., MA.

†*Amandophyllum* sp. ind. p. 82 fig., IGÖ.—*A. symmetricum* p. 68 fig., *myatshkovense* p. 68 fig., [DOBROLYUBOVA].

†Amplexidae p. 293, SCHOUPPE & STACUL.

†Amplexocarina sp. p. 119 fig., *jokeri* p. 123 fig., KOLOSÁRY (1).—Amplexocarina p. 293, *muralis* p. 294 fig., *abichi* p. 301 fig., *bitaniensis* **sp. n.** p. 307 fig., *beyrichi* p. 308 fig., *jonkeri* p. 311 fig., *geyeri* p. 313 fig., *subtilis* **sp. n.** p. 315 fig., *composita* **sp. n.** p. 316 fig., *heritschi* **sp. n.** p. 318 fig., *arcuata* **sp. n.** p. 320 fig., *duplex* **sp. n.** p. 322 fig., *thomasi* **sp. n.** p. 323 fig., Permian Timor, SCHOUPPE & STACUL.

†Amplexocarinae p. 293, SCHOUPPE & STACUL.

†Amplexus p. 5, sp. p. 5 fig., [FOMICHEV].—*A. coraloides* p. 295, but *abichi* p. 301 and *beyrichi* p. 308 are spp. of Amplexocarina, SCHOUPPE & STACUL.—*A. cornuformis* var. *breviseptata* pp. 15, 86 fig., var. *minor* pp. 15, 86 fig., **varr. n. L.** Carboniferous Kazakhstan, VOLKOVA (1).—*A. inoginatus* pl. 4, WARREN & STELCK.

†*Amygdalophylloides monoseptatus* var. *robusta* p. 68 fig., *ivanovi* p. 68 fig., *crassicolumellatus* p. 68 fig., [DOBROLYUBOVA].

†*Amygdalophyllum* sp. a p. 42, KATO (1).

Anomastrea irregularis p. 21 fig., MA.

Anomocora secunda p. 15, SQUIRES (1).

Antholoba achates p. 28 fig., CARLGRÉN.

Anthopleura hermafroditica p. 22, CARLGRÉN.—*A. midori* p. 112 fig., *kurogane* p. 113 fig., **spp. n.** Japan, *pacifica* p. 115 fig., *asiatica* **sp. n.** p. 117 fig. Japan, UCHIDA & MURAMATSU.—*A. stella* p. 21 fig., *xanthogrammica* p. 21 fig., UTINOMI.

Anthothoe chilensis p. 32, CARLGRÉN.

Anthozoa key to Californian spp. p. 43, Hand in LIGHT.

Antipathes japonica p. 27 fig., *dubia* p. 27 fig., *densa* p. 27 fig., UTINOMI.

†*Antiphyllum* aff. *inopinatum* p. 309 fig., ŘEHOŘ & ŘEHOŘOVÁ.

†*Arachnastraea molli* p. 82, [DOBROLYUBOVA].

†*Arachnolasma cylindricum* p. 269, KATO.—*A.* p. 48, *disaxophylloides* **sp. n.** pp. 49, 98 fig., var. *compactocolumellata* **var. n.** pp. 50, 99 fig., *vesiculosum* **sp. n.** pp. 51, 99 fig., var. *multiseptata* **var. n.** pp. 53, 100 fig., *stereocolumellatum* **sp. n.** pp. 53, 101 fig., *elegans* **sp. n.** pp. 54, 102 fig., *variabile* **sp. n.** pp. 55, 102 fig., var. *compacta* **var. n.** pp. 56, 103 fig., *sinese* var. *complicata*

var. n. pp. 57, 103 fig., aff. *sinense* var. *aseptata* p. 58 fig., *A. (?) dibunophylloides* var. *densa* p. 58 fig., *A. crassocolumellatum* var. *cystosa* var. n. pp. 59, 104 fig., var. *kasachstanica* var. n. pp. 60, 104 fig., aff. *longiseptatum* p. 61 [? sp. n. Gorsky] p. 61, *A. (?) clisiophylloides* sp. n. pp. 62, 104 fig., L. Carboniferous Kazakhstan, VOLKOVA (1).

†*Asserculinia* gen. n. (fam. Zaphrentoididae) p. 284, type sp. (by original designation) *prima* sp. n. p. 285 fig. Permian Timor, SCHOUPPE & STACUL Palaeontographica 4 5 4 1959.

Asterosmia prolifera p. 12, SQUIRES (1).

Astraeopora [as *Astreopora* (sic)] *gracilis* p. 9 fig., *incrustans* p. 9 fig., *myriophthalma* p. 9 fig., *ocellata* p. 10 fig., MA.

Astrangia astraeiformis pp. 2130, 2132 fig., PARKER.—*A.* p. 415, *A. (Astrangia) haimsi* p. 415, *hondaensis*, *tangolaensis*, *dentata* p. 417, *costata*, *californica*, *A. (Coenangia) conferta* p. 418, SQUIRES.

Astroides calycularis p. 24 fig., ABEL.

†*Atelophyllum trizonatum* nom. nud. p. 197, [IVANIYA (3)].

Aulocyathus sp. p. 23 fig., SQUIRES (1).

†*Aulophyllum* ? *richardsoni* pl. 3, WARREN & STELCK.

†*Axolithophyllum cavum* p. 66 fig., [DOBROLYUBOVA].

Balanophyllia tiburonensis p. 423, SQUIRES.—*B. formosa* p. 30, *floridana* p. 31, SQUIRES (1).

†*Balanophyllia caliculus* p. 90 fig., ANON.

†*Barytichisma* p. 287, *B. ? permicum* sp. n. p. 288 fig., SCHOUPPE & STACUL.

†*Basleophyllum* gen. n. (fam. Zaphrentoididae) p. 270, type sp. (by original designation) *Dumciana indica* p. 272 fig., *pachyderma* p. 275 fig., *incertum* p. 277 fig., *brouveri* sp. n. p. 280 fig., *solidum* sp. n. p. 282 fig., *pusillum* sp. n. p. 283 fig., sp. p. 284, Permian Timor, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.

Bathycyathus consensens p. 422, SQUIRES.

Bathypsammia p. 31, *tininnabulum* p. 32 fig., *fallosocialis* sp. n. p. 37 fig. off Florida, SQUIRES (1).

Biflabellum anthophyllum p. 7, ROSSI (4).

†*Billingsastrea* p. 41, *verneuli* p. 42 fig., *billingsi* p. 43 fig., CRANSWICK & FRITZ.—*B. [as Billingsastrea (sic)] nevadense* pl. 1, WARREN & STELCK.

Bolocera occidua p. 26 fig., CARLGREN.

Boloceroides mcMurrichi p. 22 fig., UTINOMI.

Boloceropsis platei p. 26, CARLGREN.

Boninastraea boninensis p. 67 fig., MA.

†*Bothrophyllum conicum* pp. 66, 76, 77 fig., *kashiricum* pp. 69, 75 fig., *pseudoconicum* pp. 71, 75, 76 fig., [DOBROLYUBOVA].

†*Bradyphyllum nikitini* pp. 69, 73 fig., *serpens* p. 73 fig., [DOBROLYUBOVA].

Bumodactis octoradiata p. 22, *hermafroditica* p. 23, CARLGREN.

Cactosoma chilensis p. 15 fig., CARLGREN.

†*Calamoseris simplex* p. 167 fig., SUCIĆ.

Calliactis polyth p. 21 fig., UTINOMI.

†*Campophyllum parvulum* p. 74, *C. (?) compositum* p. 75, [DOBROLYUBOVA].—*C.* p. 29, *spumosum* sp. n. pp. 30, 91 fig., var. *robusta* var. n. pp. 31, 91 fig., aff. *caninoides* p. 31 fig., sp. p. 32, L. Carboniferous Kazakhstan, VOLKOVA (1).

†*Caninia cornucopiae* p. 31 fig., SCHOUPPE & STACUL (1).—*C.* p. 16, *cornucopiae* p. 16 fig., var. *gigantea* var. n. pp. 16, 86 fig., cf. *dorlodoti* p. 17 fig., *dieskasganica* sp. n. pp. 19, 87 fig., *cylindrica* p. 21 fig., *kassini* ? var. *singularis* var. n. pp. 22, 88 fig., *partita* p. 23 fig., *C. (Caninophyllum) patula* var. *ulandjensis* var. n. pp. 18, 87 fig., L. Carboniferous Kazakhstan, VOLKOVA (1).

†*Caninophyllum bothrophylloides* p. 66 fig., [DOBROLYUBOVA].—*C.* see *Caninia*.

†*Carruthersella* p. 65, *robusta* var. *reticulata* var. n. pp. 65, 105 fig. L. Carboniferous Kazakhstan, VOLKOVA (1).

Caryophyllia clavus p. 41, ABEL.—*C. clavus* p. 67 fig., [NAUMOV].—*C. clavus*, *cyathus* p. 3, *smithi* p. 5, ROSSI (4).—*C. arcuata* p. 8, *clavus* p. 10, *cyathus* p. 11, SQUIRES (1).

Caulastraea [as *Caulastrea* (sic)] *tumida* p. 35 fig., *furcata* p. 36 fig., *echinulata* p. 36 fig., MA.—*C. [as Caulastrea (sic)]*, key to Philippines sp. p. 83, *echinulata* p. 84 fig., *furcata* p. 84 fig., *tumida* p. 85 fig., NEMENZO.—*C. [as Caulastrea (sic)] tumida* p. 26 fig., UTINOMI.

Ceratotrochus (Ceratotrochus) franciscana p. 423, SQUIRES.

†*Ceratotrochus* cf. *duodecimcostatus* p. 7 fig., SILVA.

Cereus ? *herpetodes* p. 31, CARLGREN.

Cerianthus membranaceus p. 52, ABEL.—*C. filiformis* p. 28 fig., UTINOMI.

†*Charactophyllum simplex* nom. nud. p. 200, [IVANIYA (3)].—*C. simplex* nom. nud. p. 245, [IVANIYA (4)].—*C.* p. 82, *nanum* p. 82 fig., WATKINS.

Cirripathes anguina p. 27 fig., *spiralis* p. 27 fig., UTINOMI. *Cladocora caespitosa* [sic] p. 44 fig., ABEL.—*C. caespitosa* p. 59 fig., MA.

Cladorbicella p. 59 fig., MA.

†*Clisiophyllum* p. 63, *modavense* var. *orientalis* var. n. pp. 64, 105 fig., VOLKOVA (1).

Cnidanthea gen. n. (? fam. Isanthidae), type sp. (by monotypy) *maculata* sp. n. p. 36 fig. Peru, CARLGREN Acta Mus. Lund. N.S. (2) 56 6 1959.

Coelogyra gen. n. (fam. Faviidae) p. 109, type sp. (by original designation) *levis* sp. n. p. 109 fig. Philippines, NEMENZO Natural appl. sci. Bull. 16 1959.

Coeloseris mayeri p. 20 fig., MA.

Coenangia see *Astrangia*.

Coenocyathus dohrni p. 51, ABEL.—*C. cylindricus* p. 5, ROSSI (4).—*C. boursi* p. 422, SQUIRES.

Colpophyllia gyrosa p. 58 fig., *amaranthus* p. 58 fig., MA.

†*Columnaria rhenana* p. 150 fig., MIDDLETON.

†*Columnophyllia* [as *Columnaphyllia* (sic)] *tithonica* p. 166 fig., SUCIĆ.

†*Combophyllum* cf. *multiradiatum* pl. 1, WARREN & STELCK.

†*Confusastraea tomasensis* p. 115 fig., KOLOSVÁRY.

†*Convexastraea* [as *Convexastrea* (sic)] *desori* p. 46, MITROVIĆ-PETROVIĆ.

†*Corvenia* [as *Corvenia* (sic)] p. 66, *jatsengiaeformis* sp. n. pp. 67, 106 fig. L. Carboniferous Kazakhstan, VOLKOVA (1).

Corynactis chilensis p. 10, CARLGREN.

Coscinaeaea monile p. 21 fig., *maeandrina* p. 22 fig., *columna* p. 22 fig., MA.

†*Coscinaeaea sommeringi* p. 115 fig., KOLOSVÁRY.

†*Craspedophyllia alpina* p. 115 fig., KOLOSVÁRY.

- †*Cryptocoenia limbata* p. 115 fig., KOLOSÁRY.
- †Cyathactidae **fam. n.** p. 122, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.
- Cyathactis **gen. n.** (fam. Cyathactidae) p. 122, type sp. (by original designation) *typus* p. 123 fig., *tenuiseptatus* p. 124 fig., *socialis* p. 124 fig., **spp. n.** Silurian Siberia, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.
- †Cyathoclisia laxicolumnaris spelling corrected p. 194, CVANCARA.
- †Cyathophyllum cf. lonense pl. 4, WARREN & STELCK.—C. see Palaeosmilina.
- Cycloseris cycloites p. 22 fig., MA.—C. elegans, mexicana p. 414, SQUIRES.
- Cyphastrea [as Cyphastrea (sic)] microphthalma p. 61 fig., serailia p. 62 fig., chalcidicum p. 62 fig., MA.—C. [as Cyphastrea (sic)] p. 112, key to Philippines spp., microphthalma p. 113, serailia p. 114, chalcidicum p. 115, conferta **sp. n.** p. 116 fig., Philippines, ocellina p. 116 fig., NEMENZO.
- †Cyphastrea [as Cyphastrea (sic)] minima **sp. n.** p. 114 fig. Tertiary W. Australia, PULLEY.
- †Cystina **subgen. n.** (of Spineria) p. 334, type sp. (by original designation) Cystiphyllum ultimum p. 334 fig., uniformis **sp. n.** p. 336 fig., Permian Timor, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.
- †Cystiphyllodes p. 46, nesculosum p. 46 fig., CRANSWICK & FRITZ.—C. giganteum, karatschumyschicum p. 197, fasciculatum p. 198, nomm. nud., [IVANIYA (3)].
- †Cystiphyllum diplohone the type sp. of Spineria p. 333, ultima the type sp. of S. (Cystina) p. 334, SCHOUPPE & STACUL.
- †Cystophora freieslebeni p. 81 fig., humboldti p. 81, [DOBROLYUBOVA].
- Dendrophyllia cornigera, ramea p. 8, ROSSI (4).—D. cortezi p. 426, SQUIRES.—D. cornigera p. 27, profunda p. 28 fig., SQUIRES (1).
- †Depasophyllum discussed p. 17, McLAREN.—D. p. 298, SCHOUPPE & STACUL.
- Desmophyllum cristagalli p. 18 fig., SQUIRES (1).
- †Desmophyllum cf. crista-galli p. 19, THOMAS, H. D.
- Diadumene luciae p. 80 fig., CARL & GUIQUET.—D. luciae p. 21 fig., UTINOMI.
- †Dialythyphyllum kerlegeschicum, brevisseptatum nomm. nud. p. 197, [IVANIYA (3)].
- †Dibunophyllum sp. p. 270, KATO.—D. cf. bipartitum konincki p. 39 fig., cf. asiaticum p. 40 fig., KATO (1).
- Dichocoenia stokesi p. 66 fig., MA.
- †Digonophyllum astraeforme, zaretsheniense, karatschumyschicum nomm. nud. p. 197, [IVANIYA (3)].
- †Diphyphyllum p. 32, latetabulatum pp. 33, 92 fig., tuberculatum pp. 33, 92 fig., **spp. n.** L. Carboniferous Kazakhstan, aff. elegans p. 34 fig., VOLKOVA (1).
- Diploastraea [as Diploastrea (sic)] heliophora p. 60 fig., MA.
- †Diplotenium p. 196, conjungens noszkyi **subsp. n.** p. 197 fig., jacobii undulatum **subsp. n.** p. 200 fig., sp. juv. p. 202 fig., Cretaceous Hungary, GÉCZY.
- Diploria cerebrum p. 44 fig., sinuosa p. 44 fig., labyrinthiformis p. 44 fig., clivosa p. 45 fig., strigosa p. 45 fig., MA.
- †Discocoenia sp. aff. bononiensis p. 125 fig., KOLOSÁRY (2).—“D. cf. bononiensis” p. 115 fig., KOLOSÁRY.
- †Disphyllum longiseptatum pp. 293, 310 fig., irregulare pp. 293, 310 fig., multiseptatum **sp. n.** pp. 294, 311 fig., Devonian China, CHEN.—D. p. 38, dyeri **sp. n.** p. 38 fig., M. Devonian Canada, CRANSWICK & FRITZ.—D. p. 152, caespitosum var. p. 152 fig., sp. p. 152 fig., MIDDLETON.—D. ? disjunctum pl. 6, WARREN & STELCK.
- †Diversophyllum a junior synonym of Tabulophyllum p. 81, WATKINS.
- Dofleinia armata p. 22 fig., UTINOMI.
- †Donia cf. ruziensis pp. 295, 313 fig., CHEN.—D. sibirica p. 199, interrupta p. 204, nomm. nud., [IVANIYA (3)].
- †Duncania indica the type sp. of Basleophyllum p. 270, SCHOUPPE & STACUL.
- †Duncanopsammia axifuga p. 115 fig., ? D. **sp. n.** [sic] p. 115 fig. Tertiary W. Australia, PULLEY.
- †Duplophyllum p. 239, D. (Duplophyllum) p. 241, zaphrentoides p. 242 fig., tenuiseptatum **sp. n.** p. 246 fig., calyculatum p. 248 fig., mikron **sp. n.** p. 249 fig., wanneri **sp. n.** p. 251 fig., schindewolfi **sp. n.** p. 252 fig., D. (Euryphyllum) p. 253, cainodon p. 258 fig., robustum p. 262 fig., coniciforme **sp. n.** p. 265 fig., hilli **sp. n.** p. 266 fig., brevisseptatum **sp. n.** p. 268 fig., Permian Timor, SCHOUPPE & STACUL.—D. (Euryphyllum) cainodon p. 37 fig., SCHOUPPE & STACUL (1).
- Echinophyllia aspera p. 74 fig., var. sugiyamai p. 75 fig., var. tosenensis p. 75 fig., MA.—E. p. 119, aspera p. 119 fig., NEMENZO.—E. aspera p. 23 fig., UTINOMI.
- Echinopora lamellosa p. 63 fig., var. fruticulosa p. 63 fig., gemmacea p. 63 fig., hirsutissima p. 63 fig., MA.—E. p. 117, key to Philippines spp. p. 118, lamellosa p. 118 fig., horrida p. 118 fig., NEMENZO.
- Edwardsia intermedia p. 11 fig., CARLSEN.—E. japonica p. 22 fig., UTINOMI.
- †Elysastraea profunda p. 115 fig., KOLOSÁRY.
- Enallopsammia rostrata p. 40, SQUIRES (1).
- †Endamplexidae **fam. n.** p. 324, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.
- †Endamplexinae **subfam. n.** (of Endamplexidae) p. 324, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.
- †Endamplexus p. 325, E. (Endamplexus) p. 326, dentatus p. 326 fig., kokeri **sp. n.** p. 328 fig., E. (Spaniophyllum) p. 328, makros **sp. n.** p. 329 fig., varipusulosus **sp. n.** p. 330 fig., Permian Timor, SCHOUPPE & STACUL.
- Endopachys vaughani p. 426, SQUIRES.
- †Endophyllum p. 144, additum p. 146 fig., sp. p. 147, [IVANIYA].—E. p. 35, E. [Tabulophyllum] tenuiseptatum p. 35 fig., latitabulatum p. 36 fig., brevisseptatum p. 37 fig., **spp. n.** U. Devonian eastern U.S.S.R., macconelli p. 38 fig., gorskii p. 40 fig., sp. p. 41 fig., [IVANIYA (2)].—E. additum var. sibirica nom. nud. p. 200, [IVANIYA (3)].
- Epiactis georgiana p. 24 fig., CARLSEN.—E. prolifera p. 21 fig., UTINOMI.
- Epizoanthus paxii p. 8, ABEL.
- †Eridophyllum simcoensis the type sp. of Acinophyllum p. 22, McLAREN.—E. asiaticum nom. nud. p. 197, [IVANIYA (3)].
- Euphyllia fimbriata p. 78 fig., glabrescens p. 78 fig., rugosa p. 78 fig., turgida p. 78 fig., picteti p. 78 fig., var. flexuosa p. 79 fig., MA.

†*Euryphyllum* a subgen. of *Duplophyllum* (q.v.) p. 253, SCHÖUPPE & STACUL.—E. see *Duplophyllum*.

Eusmilis fastigiata p. 80 fig., *aspera* p. 80 fig., MA.

†*Evenkiella* gen. n. (fam. Evenkiellidae) p. 126, type sp. (by original designation) *helenae* p. 126 fig., *obruschevi* p. 127 fig., spp. n. Silurian Siberia, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.

†*Evenkiellidae* fam. n. p. 126, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.

Fagesia ignota sp. n. p. 13 fig. Chile, CARLGREN.

†*Fasciphyllum massivum* Bulv. in litt. ? nom. nud. p. 195, *salatricum* nom. nud. p. 197, [IVANIYA (3)].

Favia speciosa p. 37 fig., *pallida* p. 39 fig., *stelligera* p. 40 fig., *laxa* p. 40 fig., *magnistella* p. 40 fig., *favus* p. 41 fig., *hululensis* p. 41 fig., *rotumana* p. 41 fig., *bombroni* p. 42 fig., *ehrenbergi* p. 42 fig., *bertholletii* p. 42 fig., *savignyi* p. 42 fig., *doreyensis* p. 42 fig., *fragrum* p. 42 fig., *ananas* p. 42 fig., *gravidia* p. 43 fig., sp. p. 43 fig., MA.—F. p. 85, key to Philippines spp. p. 86, *favus* p. 86, *speciosa* p. 87 fig., *laxa* p. 88 fig., *valenciennesii* p. 89 fig., *pallida* p. 89 fig., *danae* p. 90 fig., *rotumana* p. 91 fig., NEMENZO.—F. *speciosa* pp. 24, 26 fig., UTMOMI.

Faviidae, key to subfamilies and genera p. 82, NEMENZO.

†*Favistella* (*Dendrostella*) *trigemma trigemma* p. 113, FLÜGEL, H.—F. p. 125, *dybowski* sp. n. p. 125 fig. Ordovician Siberia, [SOSHKINA].

Favites abdita p. 45 fig., *pentagona* p. 46 fig., *spinosa* p. 46 fig., *spectabilis* p. 46 fig., *virens* p. 46 fig., *flexuosa* p. 46 fig., *hirsuta* p. 46 fig., *seychellensis* p. 46 fig., *halicora* p. 47 fig., *favosa* p. 47 fig., *complanata* p. 47 fig., *vasta* p. 47 fig., *deformis* p. 47 fig., sp. p. 47 fig., MA.—F. key to Philippines spp. p. 93, *virens* p. 93, *abdita* p. 94 fig., *flexuosa* p. 95, *yamanarii* var. *profunda* p. 96 fig., *halicora* p. 96, *parvicella* sp. n. p. 97 fig. Philippines, NEMENZO.

†*Fischerina* discussed p. 34, KATO (1).

Flabellum pavoninum p. 7, ROSSI (4).—F. spp. discussed p. 25, *alabastrum* p. 27, SQUIRES (1).

Fungia fungites p. 22 fig., var. *haimi* p. 23 fig., var. *discus* p. 24 fig., var. *dentata* p. 24 fig., *scutaria* p. 25 fig., var. *danae* p. 26 fig., *pauotensis* p. 26 fig., var. *carchasin* p. 26 fig., *concinna* p. 26 fig., var. *serrulata* p. 27 fig., *repanda* p. 27 fig., *samoensis* p. 28 fig., *danae* p. 28 fig., *costulata* p. 28 fig., *sinensis* p. 28 fig., *plana* p. 28 fig., cf. *scruposa* p. 29 fig., *granulosa* p. 29 fig., *actiniformis* p. 29 fig., var. *palaensis* p. 29 fig., *echinata* p. 29 fig., MA.—F. variation p. 45, ROSSI (1).

Galaxaea [as *Galaxea* (sic)] *fascicularis* p. 64 fig., *musicalis* p. 65 fig., MA.—G. key to Philippines spp., *claus* p. 79, *fascicularis* p. 80 fig., *louisiana* sp. n. p. 82 fig. Philippines, NEMENZO.

†*Gangamophyllum* p. 68, G. (?) *superbum* pp. 69, 107 fig., *G. mugodjaricum* pp. 70, 108 fig., spp. n. L. Carboniferous Kazakhstan, sp. (?) [sic] p. 71 fig., VOLKOVA (1).

Gemmipora see *Turbinaria*.

Gerardia savaglia p. 1 fig., ROSSI (3).

†*Gerthia sibirica* p. 22 fig., *crassa* p. 22 fig., [KASHIRTZEV].

Gonactinia prolifera p. 10, CARLGREN.

Goniastrea [as *Goniastrea* (sic)] *retiformis* p. 48 fig., *aspera* p. 49 fig., *pectinata* p. 49 fig., *boumoui* p. 50 fig., *planulata* p. 50 fig., *benhami* p. 51 fig., *seychellensis* p. 51 fig., *laxa* p. 51 fig., *grayi* p. 51 fig., MA.—G. [as *Goniastrea*

(sic)] p. 97, key to Philippines spp. p. 98, *retiformis* p. 98, *pectinata* p. 99, *parvistella* p. 100 fig., *mantoneae* p. 101 fig., *equisetia* sp. n. p. 101 fig. Philippines, *planulata* p. 102 fig., NEMENZO.

Goniopora tenuis p. 33 fig., *minor* p. 34 fig., *lagrenesi* p. 34 fig., *tenella* p. 34 fig., sp. p. 34 fig., MA.—G. cf. *lobata* p. 23 fig., UTMOMI.

†*Goniopora websteri* p. 32 fig., ANON.

†*Grypophyllum wedekindi*, *clarifundatum*, *unduliseptatum*, *ceriosum*, *minimum* nomm. nud. p. 197, [IVANIYA (3)].—G. p. 143, *tenuis* p. 143 fig., cf. *tenuis* p. 144 fig., *tenuis* var. p. 145 fig., *gracilis* McCoy p. 146, *wedekindi* nom. n. for *gracilis* Wedekind not McCoy p. 146 Devonian Germany, cf. *wedekindi* p. 146 fig., cf. *normale* p. 146 fig., cf. *regressum* p. 146 fig., *robustum* probably = *gracilis* p. 146, sp. p. 147 fig., MIDDLETON.—G. sp. pl. 1, *rectum* pl. 3, WARREN & STELCK.

†*Gshelia rouillieri* p. 69 fig., [DOBROLYUBOVA].

Halcampa abtaensis sp. n. p. 13 fig. Chile, Bratström in CARLGREN.

†*Hallia* p. 35, *abitibiensis* sp. n. p. 35 fig. M. Devonian Canada, CRANSWICK & FRITZ.

Halomitra philippinensis p. 31 fig., MA.

†*Hapsiphyllum* see *Zaphrentoides*.

†*Heliastrea* [as *Heliastrea* (sic)] *reussana* pl. 2, EREMIJA.—H. *reussana* ? [sic] p. 7 fig., SILVA.

†*Heliophyllum* p. 36, *halli* p. 36, var. *dilatiseptatum* var. n. p. 37 fig. M. Devonian Canada, CRANSWICK & FRITZ.—H. *halli* var. *altaica* nom. nud. p. 198, [IVANIYA (3)].—H. p. 155, *shinneri* sp. n. p. 155 fig. M. Devonian S. England, MIDDLETON.

Herpolitha limax p. 30 fig., MA.

†*Heterocarinia* p. 279, sp. ind. p. 280, KATO.

Heterocyathus roussaeana p. 272 fig., *aequicostatus* p. 272 fig., SCHINDEWOLF.—H. *aequicostatus* p. 423, SQUIRES.

†*Heterophrentis sibiricum*, *bifurcatum* nomm. nud. p. 198, [IVANIYA (3)].

Heteropsammia cochlea p. 272 fig., SCHINDEWOLF.

†*Hexagonaria* p. 39, *prisma* p. 39 fig., *martisoni* sp. n. p. 40 fig. M. Devonian Canada, CRANSWICK & FRITZ.—H. *sibirica* nom. nud. p. 244, [IVANIYA (4)].—H. *kirki* pl. 1, *arctica* pl. 2, cf. *flexum* pl. 4, cf. *magna* pls. 20, 23, *schucherti* pl. 22, WARREN & STELCK.

†*Hexalasma protosepiatum* p. 21 fig., [KASHIRTZEV].

†*Hexaphyllia* sp. ind. p. 284 fig., *elegans* type p. 285 fig., KATO.

Holcotrochus scriptus p. 286 fig., WELLS.

†*Holophragma calceoloides* p. 192 fig., [SOSHKINA].

Hormathia pectinata p. 30, CARLGREN.

†*Huangia* ? *kanensis* sp. n. p. 182 fig. Permian Japan, KAWANO.

Hydnophora exesa p. 56 fig., *microconos* p. 57 fig., *grandis* p. 57 fig., MA.—H. p. 102, key to Philippines spp. p. 103, *exesa* p. 103 fig., *microconos* p. 104 fig., *rigida* p. 104 fig., *ramosa* [as *ramosa* (sic) in text] sp. n. p. 105 fig. Philippines, NEMENZO.—H. *exesa* pp. 24, 26 fig., UTMOMI.

†*Hydnophora picteti* p. 45, MITROVIĆ-PETROVIĆ.

†*Icaunhelia* gen. n. p. 621, type sp. (by original designation) *micelini* sp. n. p. 621 fig. U. Jurassic France, BEAUVAIS Bull. Soc. géol. Fr. (6) 8 6 1959.

- †*Iranophyllum tunicatum* sp. n. p. 82 fig. Permian Japan, Iod.
- †*Isastraea crenulata* p. 89 fig., sp. pl. 5, JOVANOVIĆ & DOLIĆ.
- Isophyllia sinuosa* p. 73 fig., *aspera* p. 74 fig., MA.
- Isoetalia antarctica* p. 24 fig., CARLOREN.
- Isolectis* gen. n. (fam. Actiniidae) p. 20, type sp. (by monotypy) *chilensis* sp. n. p. 20 fig. Chile, CARLOREN. Acta Mus. Lund. N.S. (2) 56 6 1959.
- †*Kobymaendrea* [as *Kobymaendrea* (sic)] *corrugatiformis* p. 115 fig., KOLOSÁRY.
- †*Koninkophyllum* see *Lophophyllum*.
- †*Laccophyllum* p. 9, *fossulatum* sp. n. pp. 9, 83 fig. L. Carboniferous Kazakhstan, VOLKOVA (1).—*L.* see *Syringaxon*.
- Leptastrea* [as *Leptastrea* (sic)] *bottae* p. 60 fig., MA.—*L.* [as *Leptastrea* (sic)], key to Philippines spp. p. 110, *bottae* p. 110 fig., *purpurea* p. 111, *mammiformis* p. 112 fig., NEMENZO.—*L.* [as *Leptastrea* (sic)] *purpurea* p. 24 fig., UTINOMI.
- †*Leptoinophyllidae* p. 143, MIDDLETON.
- Leptopsammia microcardia* p. 42 fig., ABEL.
- Leptoria phrygia* p. 55 fig., *stricta* p. 55 fig., *gracilis* p. 56 fig., MA.
- Leptoseris fragilis* p. 16 fig., *hawaiiensis* p. 16 fig., *scabra* p. 17 fig., *tubulifera* p. 17 fig., *porosus* p. 17 fig., *nobilis* p. 17 fig., *gravieri* p. 17 fig., *tenuis* p. 17 fig., *columna* p. 17 fig., *explanulata* p. 17 fig., *papyracea* p. 17 fig., *incrustans* p. 17 fig., *gordineri* p. 18 fig., *minikoiensis* p. 18 fig., sp. 1 p. 18 fig., MA.
- †*Lithostrotion martini* p. 127, CONIL.—*L. mutabile-whitneyi* group p. 19, NELSON.—*L. mutabile* p. 22 fig., *whitneyi* p. 23 fig., *arizelum* p. 24 fig., *L. sp. n.* (sic) p. 22 fig. L. Carboniferous Canada, NELSON (1).—*L. aff. portlocki* p. 36 fig., *aff. m'coyanum* p. 36 fig., sp. p. 37 fig., *aff. caespitosum* p. 38 fig., VOLKOVA (1).
- Lobophyllia corymbosa* p. 68 fig., *costata* p. 69 fig., *robusta* p. 70 fig., *hemprichii* p. 71 fig., *L. (Palauphyllia) hatatii* p. 71 fig., *L. wellsii* sp. n. p. 71 fig. Red Sea, MA.—*L.*, key to Philippines spp. p. 128, *corymbosa* p. 129, *costata* p. 129 fig., *hemprichii* p. 130 fig., *L. (Palauphyllia) hatatii* p. 131 fig., NEMENZO.
- †*Lonsdaleia* aff. *duplicata duplicata* p. 274 fig., KATO.
- †*Lonsdaleiastraea* ? sp. p. 84 fig., Iod.
- Lophelia prolifera* p. 7, ROSSI (4).—*L. prolifera* p. 5 fig., ROSSI (5).—*L. prolifera* p. 22, SQUIRES (1).
- †*Lophocarinophyllum* p. 38, cf. *acanthiseptum* p. 38 fig., [FOMITCHEV].
- †*Lophophyllum* p. 38, *L. (Koninkophyllum) ischimicum* pp. 38, 93 fig., *kiickpaensis* pp. 39, 94 fig., *floriforme* pp. 41, 95 fig., *sp. n.*, *albasaricum* sp. n. pp. 41, 96 fig., var. *ovalis* var. n. pp. 42, 96 fig., *interruptoseptatum* [as *interruptoseptatum* (sic) p. 43] sp. n. pp. 43, 97 fig., *L. (?) (K.) singulare* sp. n. pp. 44, 97 fig., *L. (K.) kasachstanicum* var. *conjuncta* p. 45 fig., *aff. kasachstanicum* var. *composita* p. 46 fig., sp. (?) [sic] p. 47 fig., L. Carboniferous Kazakhstan, VOLKOVA (1).
- †*Leyllophyllum salairicum* nom. nud. p. 195, [IVANIYA (3)].
- †*Macgea proteus* pl. 19, WARREN & STELCK.
- Madrepore oculata* p. 8, ROSSI (4).—*M. oculata* p. 5, SQUIRES (1).
- Maendrina* [as *Meandrina* (sic)] *maendrites* p. 65 fig., *braziliensis* p. 65 fig., MA.
- †*Maichelasma* gen. n. p. 30, type sp. (by original designation) *magnum* sp. n. p. 30 fig. Permian eastern U.S.S.R., [FOMITCHEV] Trud. Vses. Nauch.-Issl. Geol. Inst. (VSEGEI) Min. Geol. Moscow 1953.
- Manicina areolata* p. 57 fig., MA.
- †*Margarosmia carpatica* p. 112 fig., KOLOSÁRY.
- †*Megaphyllum pashense* p. 6 fig., [IVANIYA (1)].—*M. p.* 30, *pashense* p. 31 fig., *caespitosum* p. 32 fig., *longiseptatum* sp. n. p. 33 fig. U. Devonian eastern U.S.S.R., [IVANIYA (2)].
- †*Meniscophyllum kansuense* p. 69 fig., [DOBROLYUBOVA].
- Merulina ampliata* p. 66 fig., MA.—*M. p.* 125, key to Philippines spp. p. 126, *ampliata* p. 126 fig., *vaughani* p. 126 fig., var. *rotunda* var. n. p. 127 fig. Philippines, *laxa* p. 127 fig., NEMENZO.
- Merulinidae p. 125, NEMENZO.
- Metridium dianthus* p. 67 fig., [NAUMOV].
- †*Metriophyllum battersbyi* a sp. of *Stringophyllum* p. 148, MIDDLETON.—*M. (Stereolasma)* sp. A pl. 23, WARREN & STELCK.
- Montastrea* [as *Montastrea* (sic)] p. 59 fig., *radiata* p. 59 fig., *caernosa* p. 59 fig., *curta* p. 59 fig., MA.
- Montigya taiwanica* Ma & Kawaguti sp. n. p. 56 fig. Taiwan, *sinuosa* p. 56 fig., MA.
- Montipora foliosa* p. 10 fig., *vaughani* p. 11 fig., *verrilli* p. 11 fig., *maendrina* p. 11 fig., *prolifera* p. 11 fig., *informis* p. 11 fig., *guppyi* p. 12 fig., *ambigua* p. 12 fig., *challengeri* p. 12 fig., *ramosa* p. 12 fig., *sinensis* p. 12 fig., *verrucosa* p. 12 fig., *multiformis* p. 13 fig., *danae* p. 13 fig., *striata* p. 15 fig., MA.—*M. fragosa* p. 411, SQUIRES.
- †*Montipaltia marmorea* p. 115 fig., *norica-slovacensis* p. 115 fig., KOLOSÁRY.—*M. sp.* p. 126, KOLOSÁRY (2).
- Moseleya latistellata* p. 64 fig., *minor* sp. n. p. 64 fig. Taiwan Strait, MA.
- Mussa rigida* p. 73 fig., MA.
- Mussidae, key to genera p. 128, NEMENZO.
- Mussismilia hartii* p. 68 fig., MA.
- Mycedium tenuicostatum* p. 75 fig., *elephantotus* p. 76 fig., MA.—*M. p.* 120, *elephantotus* p. 120 fig., NEMENZO.
- Mycetophyllia lamarciana* p. 74 fig., MA.
- †*Naliokinella brevisseptata* nom. nud. p. 200, [IVANIYA (3)].
- Nemanthus nitidus* p. 22 fig., UTINOMI.
- †*Nemistium* p. 35, *edmondsi* var. *pauciseculosa* var. n. pp. 35, 93 fig. L. Carboniferous Kazakhstan, VOLKOVA (1).
- †*Neocolumnariidae* pp. 20, 22, [IVANIYA (2)].
- †*Neokoninkophyllum nipponense* sp. n. p. 265 fig. Carboniferous Japan, KATO.
- †*Neospongophyllum* p. 148, *smithi* p. 148 fig., MIDDLETON.
- Octineon chilense* sp. n. p. 15 fig. Chile, CARLOREN.
- Oculina* sp. p. 64 fig., MA.
- Oculinidae p. 78, NEMENZO.
- †*Opisthophyllum zitteli* p. 164 fig., SUČIĆ.
- †*Orbicella eggenbergensis* p. 89 fig., sp. pl. 5, JOVANOVIĆ & DOLIĆ.

Oryzotrochus **gen. n.** (fam. Caryophylliidae) p. 286, type sp. (by original designation) *stephensoni* p. 287 fig. Great Barrier Reef, WELLS Pacif. Sci. 13 3 1959.

Oulastrea [as *Oulastrea* (sic)] *crispata* p. 60 fig., MA.

Oulophyllia *crispa* p. 47 fig., MA.

Oxypora *lacera* p. 75 fig., *titizimaensis* p. 75 fig., MA.—*O.*, key to Philippine spp. p. 121, *lacera* p. 121 fig., *glabra* sp. n. p. 122 fig. Philippines, NEMENZO.

†*Pachyphyllum* p. 42, *ibergense* p. 42 fig., *devoniense* [sic] p. 44 fig., *intermedium* sp. n. p. 45 fig. U. Devonian eastern U.S.S.R., [IVANIYA (2)].—*P. carinatum*, *givetium* nomm. nud. p. 198, [IVANIYA (3)].—*P.* see *Phillipsastrea*.

Pachyseris *speciosa* p. 20 fig., *levicollis* p. 20 fig., *carinata* p. 20 fig., *rugosa* p. 21 fig., MA.

†*Palaeocyclus* ? *kirbyi* pl. 1, WARREN & STELCK.

†*Palaeophyllum* p. 4, *rugosum* p. 4 fig., *thomi* p. 4 fig., *thomi* ? p. 6 fig., sp. p. 7 fig., *P.* ? sp. p. 9, HILL.

†*Palaeosmia* cf. *murchisoni* p. 282, KATO.—*P.* p. 24, *stutchburyi* var. *paupercula* var. n. pp. 26, 89 fig., *concaua* var. *asiatica* var. n. pp. 27, 90 fig., *P.* (*Cyathophyllum*) *murchisoni* var. *columellata* var. n. pp. 25, 89 fig., *P.* (*C.*—as *Gyathophyllum* [sic]) *jagovkin* var. *vesicotabulata* var. n. pp. 28, 90 fig., var. *multiseptata* var. n. ? [sic] pp. 29, 90 fig., L. Carboniferous Kazakhstan, VOLKOVA (1).

Palaeophyllia see *Lobophyllia*.

†*Paliphyllidae* **fam. n.** p. 121, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.

†*Paliphyllum* **gen. n.** (fam. Paliphyllidae) p. 121, type sp. (by original designation) *primarium* sp. n. p. 121 fig. Ordovician Siberia, [SOSHKINA] Trav. Inst. Paléont. Acad. Sci. U.R.S.S. 56 1955.

Palythoa spp. p. 28 fig., UTINOMI.

Paracalliactis *lacazei* sp. n. p. 1567 S. France, DE-CHANCE & DUFAURE.

Paracoendylactis *hertwigi* p. 22 fig., UTINOMI.

Paracyathus *pulchellus* p. 7, ROSSI (4).—*P. tiburonensis* p. 423, SQUIRES.—*P. defilippi* p. 12, SQUIRES (1).

†*Paracyathus* *crassus* p. 34 fig., ANON.

Parahalomitra cf. *irregularis* p. 31 fig., *robusta* p. 31 fig., MA.

†*Paralleymia* p. 338, *soskinea* p. 339 fig., *leptoseptata* p. 341 fig., *amphibolos* p. 342 fig., **spp. n.** Permian Timor, SCHOUPPE & STACUL.

Paranthopsis *cruentata* p. 23, CARLGREN.

Paranthus *niveus* p. 27, CARLGREN.

Parantipathes *tenuispina* p. 27 fig., UTINOMI.

Parastephanauge **gen. n.** (fam. Hormathiidae) p. 86, type sp. (by monotypy) *paxi* sp. n. p. 91 fig. S. France, DUFAURE Bull. Soc. zool. Fr. 84 1 1959.

Parazanthus *axinellae* p. 9 fig., ABEL.—*P. gracilis* p. 28 fig., UTINOMI.

†*Paterophyllum* p. 121, *apertum* sp. n. p. 121 fig. Silurian Siberia, [SOSHKINA].

Pavona *cactus* p. 18 fig., *praetorta* p. 18 fig., *maldivensis* p. 18 fig., *clavus* *lilacea* p. 19 fig., *varians* p. 19 fig., *decussata* p. 19 fig., *frondifera* p. 19 fig., MA.—*P. clivosa* p. 412 fig., *gigantea* p. 413 fig., SQUIRES.—*P. decussata* p. 25 fig., UTINOMI.

Pectinia *lactuca* p. 76 fig., *alcicornis* p. 77 fig., *laciniata* p. 77 fig., MA.—*P.*, key to Philippines spp. p. 123, *plicata* sp. n. p. 123 fig., *lactuca* p. 124 fig., *paeonia* p. 124,

laciniata p. 125 fig., NEMENZO.—*P. lactuca* p. 26 fig., UTINOMI.

Pectinidae, key to genera p. 119, NEMENZO.

†*Peneckia* *minima* pp. 294, 312 fig., CHEN.—*P.* p. 129, *darwini* p. 130 fig., *tabulata* Bulvanker MS. sp. n. p. 131 fig. U. Devonian eastern U.S.S.R., [IVANIYA].—*P. elegans*, *glubokiensiensis*, *irregularis* p. 200, *belskayae*, *carinata* p. 204, nomm. nud., [IVANIYA (3)].—*P. belskayae*, *elegans* nomm. nud. p. 245, [IVANIYA (4)].

†*Pentaphyllum* (*Trachylasma*) cf. *variabile* p. 43 fig., SCHOUPPE & STACUL (1).

†*Petalaxis* *stylaxis* p. 80 fig., *flexuosus* p. 80, [DOBROLYUBOVA].

†*Phacellophyllum* p. 28, *fenense*, *tractense* p. 29, **spp. n.** Devonian Canada, *P.* ? *densum* p. 30, McLAREN.

Phellia *elongata* p. 23, ABEL.

†*Phillipsastrea* p. 133, *micrommata* p. 134 fig., *pentagona* p. 135 fig., *astraeiforme* sp. n. p. 137 fig., *zickzack* sp. n. p. 138 fig., U. Devonian eastern U.S.S.R., [IVANIYA].—*P. sedgwicki* p. 7 fig., *lazutkini* p. 10 fig., *lateseptata* sp. n. p. 11 fig., *zarubinskiense* sp. n. p. 13 fig., Devonian eastern U.S.S.R., [IVANIYA (1)].—*P.* p. 22, *sedgwicki* p. 22 fig., *undulata* sp. n. Kuzn. MS. p. 24 fig. U. Devonian eastern U.S.S.R., sp. p. 25 fig., [IVANIYA (2)].—*P. astraeiformis*, *heckeri* nomm. nud. p. 200, [IVANIYA (3)].—*P.* p. 156, *hennahi* p. 156, *goldfussi* p. 156 fig., var. ? [sic] p. 156 fig., *pentagona* var. *micrommata* p. 156 fig., spp. ? [sic] p. 157 fig., MIDDLETON.—*P.* [as *Phillipsastrea* (sic)] *verrilli* pl. 3, cf. *macouni* pls. 17, 20, *macouni* pl. 19, *whittakeri* pl. 22, *P.* (*Pachyphyllum*) *vesiculosa* pl. 22, WARREN & STELCK.

? *Phyllangia* *dispersa* p. 418, SQUIRES.

Phymactis *clematis* p. 17, CARLGREN.

Phymanthea **gen. n.** (fam. Actiniidae) p. 17, type sp. (by monotypy) *Actinia pluvia* p. 17 fig. Peru and Chile, CARLGREN Acta Mus. Lund. N.S. (2) 56 6 1959.

Phymastrea [as *Phymastrea* (sic)] *valenciennesi* p. 43 fig., MA.

Physogyra *lichtensteini* p. 79 fig., *somaliensis* p. 80 fig., MA.

Physophyllia *ayleni* p. 76 fig., MA.

†*Placophyllum* discussed p. 17, McLAREN.

Platygyra *lamellina* p. 52 fig., *astraeiformis* p. 53 fig., *daedalea* p. 54 fig., *rustica* p. 54 fig., *sinensis* p. 54 fig., *pachychila* p. 55 fig., MA.—*P.* p. 106, key to Philippines spp. p. 107, *daedalea* p. 107 fig., *lamellina* p. 107, *exigua* sp. n. p. 108 fig. Philippines, NEMENZO.—*P. lamellina* p. 24 fig., UTINOMI.

†*Pleramplexus* *similis* pp. 26, 43 fig., SCHOUPPE & STACUL (1).

Plerogyra *sinuosa* p. 79 fig., MA.

†*Pterophyllidae* discussed p. 6, [FOMITCHEV].

†*Pterophyllum* ? *fragile* p. 21 fig., [KASHIRTZEV].—*P. (Ufimia)* ? sp. inc. [sic] p. 309 fig., REHOR & REHOROVA.

Plesiastrea [as *Plesiastrea* (sic)] *versipora* p. 36 fig., *laperouseana* p. 37 fig., *conferta* p. 37 fig., sp. 1 p. 37 fig., MA.—*P.* [as *Plesiastrea* (sic)] p. 92, *salebrosa* sp. n. p. 92 fig. Philippines, NEMENZO.

Pocillopora p. 406, *damicornis* p. 408 fig., *elegans* p. 409 fig., *verrucosa* p. 410 fig., *meandrina* p. 410 fig., SQUIRES.—*P. damicornis* p. 25 fig., UTINOMI.

- Podabacia crustacea* p. 32 fig., *elegans lobata* p. 32 fig., MA.—*P. elegans lobata* p. 26 fig., UTINOMI.
- †*Polycoelia* p. 32, cf. *simplex* p. 35 fig., **sp. nov.** [sic] p. 36 fig. Permian eastern U.S.S.R., [FOMITCHEV].—*P. augusta* p. 43 fig., SCHOUPPE & STACUL (1).
- Polyphyllia talpina* p. 30 fig., *novae-hiberniae* p. 31 fig., MA.
- Porites* cf. *pukoensis* p. 33 fig., cf. *discoidei* p. 33 fig., *nigrescens* p. 33 fig., sp. p. 33 fig., MA.—*P.* p. 418, *baueri* **sp. n.** p. 420 fig. Gulf of California, *californica* p. 420 fig., SQUIRES.
- †*Prismatophyllum pentagonum* var. *regulare* var. **n.** pp. 292, 308 fig. Devonian China, *schucherti* pp. 292, 309 fig., CHEN.
- Protolophophyllia sinica* **sp. n.** p. 73 fig. Macclesfield Bank, *japonica* p. 73 fig., MA.
- †*Prototrochocyathus* **gen. n.** p. 126, type sp. (by monotypy) *valanginicus* **sp. n.** p. 126 fig. Lower Cretaceous Hungary, KOLOSÁRY Acta biol. Szeged. N.S. 5 1-2 1959.
- Psammocora profundacella* p. 5 fig., *superficiales* p. 5 fig., *planipora* p. 5 fig., *exesa* p. 5 fig., *haimiana* p. 6 fig., *contigua* p. 6 fig., *explanata* p. 6 fig., MA.—*P.* (*Stephanaria*) *brighami*, *stellata* p. 406, SQUIRES.
- †*Pseudopavona taiyakuana izutoensis* **subsp. n.** p. 183 fig. Permian Japan, KAWANO.
- †*Pseudotmania kasimovi* p. 74, [DOBROLYUBOVA].
- †*Pseudotryplasma* nom. nud., *tryplasmaformis* nom. nud. p. 195, [IVANIYA (3)].—*P.* nom. nud. p. 239, [IVANIYA (4)].
- †*Pseudozaphrentis* sp. pp. 296, 313 fig., CHEN.
- †*Pterocoralia* see *Rugosa*.
- †*Pycnactis* sp. p. 192 fig., [SOSHIKINA].
- †*Radiastrea arachne* pl. 1, WARREN & STELCK.
- †*Rhabdophyllia disputabilis* p. 115 fig., *crenaticostata* p. 115 fig., KOLOSÁRY.
- †*Rhodophyllum* ? *minatoi* **sp. n.** p. 271 fig. Carboniferous Japan, KATO.
- †*Rugosa* incert. sed. form I p. 347 fig., form II p. 348 fig., SCHOUPPE & STACUL.
- Scapophyllia cylindrica* p. 67 fig., MA.
- †*Scenophyllum* p. 34, *conigerum* p. 34 fig., CRANSWICK & FRITZ.
- †*Schlüteria* p. 140, sp. p. 140, [IVANIYA].—*S.* p. 25, *striata* p. 26 fig., *typica* p. 28 fig., **sp. n.**, *lazutkini* **sp. n.** Bulvankar M.S. p. 29 fig., U. Devonian eastern U.S.S.R., [IVANIYA (2)].—*S. ceriosa* nom. nud. p. 200, [IVANIYA (3)].
- †*Siderastrea italica* p. 89 fig., JOVANOVIĆ & DOLIĆ.—*S.* [as *Siderastrea* (sic)] *sidera* p. 21 fig., MA.
- †*Siphonodendron hidense* **sp. n.** p. 277 fig. Carboniferous Japan, KATO.
- †*Siphonophrentis* cf. *gigantea* pl. 4, WARREN & STELCK.
- †*Sochkinophyllum* p. 23, *lophophyllioides* var. *orientalis* var. **n.** p. 25 fig., *artiense* var. *densa* var. **n.** p. 27 fig., *intabulatum* **sp. n.** p. 28 fig., Permian eastern U.S.S.R., [FOMITCHEV].—*S. japonicum* **sp. n.** p. 81 fig., *pauciseptatum* **subsp. n.** p. 81 fig., Permian Japan, IGŌ.—*S.* [as *Sochkinophyllum* (sic)] *tsaregradskiy* p. 22 fig., *zavodovskiy* p. 23 fig., [KASHIRTEV].
- †*Solaminella* **gen. n.** [fam. Neocolumnariidae] p. 141, type sp. (by original designation) *soshkini* **sp. n.** p. 141 fig. U. Devonian eastern U.S.S.R., [IVANIYA] Uchen. Zapisk. Tomsk. Ghesudarst. Univ. 18 1952.
- †*Spaniophyllum* **subgen. n.** (of *Endamplexus*) p. 328, type sp. (by original designation) *makros* p. 329 fig., *varipusulus* p. 330 fig., **sp. n.** Permian Timor, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.
- †*Sphenotrochus intermedius* p. 90 fig., ANON.
- †*Spinaria* **gen. n.** (fam. Endamplexidae) p. 331, type sp. (by original designation) *Cystiophyllum diplochone* p. 333 fig., *S.* (*Spinaria*) p. 333, *S.* (*Cystina*) p. 334, *ultima* p. 334 fig., *uniformis* **sp. n.** p. 336 fig. Permian Timor, SCHOUPPE & STACUL Palaeontographica Suppl. 4 5 4 1959.
- †*Stauria prolifera* pp. 296, 314 fig., *S.* (?) *minor* **sp. n.** pp. 296, 314 fig. Silurian China, CHEN.
- Stenocyathus vermiformis* p. 23, SQUIRES (1).
- Stephanaria* see *Psammocora*.
- †*Stephanastraea favula* p. 164 fig., SUČIĆ.
- Stephanocoenia intersepta* p. 5 fig., MA.
- †*Stereolasma* p. 10, *determinatum* **sp. n.** pp. 11, 84 fig. L. Carboniferous Kazakhstan, sp. p. 12 fig., VOLKOVA (1).—*S.* see *Metriophyllum*.
- †*Strephodes gracilis* a sp. of *Grypophyllum* p. 146, MIDDLETON.
- †*Streptelasma crassiseptatum* p. 193 fig., *whittardi* [as *whittardi* (sic)] p. 193 fig., [SOSHIKINA].—*S.* ? sp. p. 10, HILL.
- †*Stringophyllidae* p. 147, MIDDLETON.
- †*Stringophyllum* p. 147, cf. *schueltense* p. 147 fig., *battershyi* p. 148, MIDDLETON.
- †*Stylina tubulifera* p. 164 fig., *foliosa* p. 164 fig., SUČIĆ.
- †*Stylosmilia michelini* p. 166, SUČIĆ.
- Symphyllia recta* p. 71 fig., *radians* p. 72 fig., *agericia* p. 72 fig., *valenciennesi* p. 72 fig., MA.—*S.*, key to Philippines spp. p. 131, *recta* p. 132, var. *pina* var. **n.** p. 133 fig., *radians* p. 133 fig., *agericia* p. 134, NEMENZO.
- †*Synaptophyllum* p. 44, *sincoense* p. 45 fig., CRANSWICK & FRITZ.—*S.* discussed p. 16, *arundinaceum* p. 18 fig., but *sincoense* p. 24, *stramineum* p. 25, *baculoidum*, *camselli*, *crassiseptatum*, *fasciculum* p. 27, *occidens* and *rectiseptatum* p. 28 are all spp. of *Acinophyllum*, and *arundinaceum* Lang & Smith and *stramineum* Smith p. 29, are *Phacelophyllum* and *densum* p. 30 is ? *P.*, McLAREN.—*S. sp. n.* (sic) pl. 20 Devonian W. Canada, WARREN & STELCK.
- †*Synastraea microcosmos* p. 164 fig., *foliacea* p. 165 fig., SUČIĆ.
- †*Syringaxon* (*Alleyia* = *Laccophyllum*) *magnus* p. 86 fig., LEWOWICKI.
- †*Syringaxonidae* p. 337, SCHOUPPE & STACUL.
- †*Tabulophyllum weberi* var. *sibiricum*, *allophyllum* nomm. nud. p. 199, [IVANIYA (3)].—*T. allophyllum* nom. nud. p. 245, [IVANIYA (4)].—*T. meconelli* pl. 19, *rectum* pl. 19, WARREN & STELCK.—*T.* a senior synonym of *Diversophyllum* p. 81, *traversensis* p. 81 fig., *rectum* p. 81 fig., WATKINS.—*T.* see *Endophyllum*.
- †*Tachylasma* p. 14, *columbinum* p. 15 fig., *vanganense* p. 17 fig., **sp. n.**, cf. *densum* p. 19 fig., *voivodae* **sp. n.** p. 20 fig., sp. p. 22 fig., Permian eastern U.S.S.R., [FOMITCHEV].

†*Taimyrophyllum salairicum, altaicum* nomm. nud. p. 197, [IVANIYA (3)].

†*Tealia felina* p. 22 fig., UTINOMI.

†*Temnophyllum* p. 152, *latum* p. 154 fig., spp. pp. 154, 155 fig., MIDDLETON.

†*Thamnaraea* sp. p. 115 fig., KOLOSÁRY.

†*Thamnasteria* [as *Tamnasteria* (sic) in expl. of pl. 2] *lobata* p. 164 fig., SUČIĆ.

†*Thamnophyllum trigeminum trigeminum* p. 117, FLÜGEL, H.—*T. toniense* nom. nud. p. 200, [IVANIYA (3)].—*T. p. 157, hoernesi* var. *trigeminum* p. 157 fig., *caespitosum* var. *minus* p. 157, MIDDLETON.

†*Thecocyathus mecsekensis* p. 125 fig., KOLOSÁRY (2).

†*Thecosmia caespitosa* p. 115 fig., *defilippi* p. 115 fig., *irregularis* p. 115 fig., KOLOSÁRY.

†*Timania stuckenbergi* pp. 69, 73 fig., *mosquensis* p. 73, *schmidtii* p. 73, [DOBROLYUBOVA].—*T. schmidtii* p. 32 fig., SCHOUPPÉ & STACUL (1).

†Timorphyllidae p. 344, SCHOUPPÉ & STACUL.

†Timorphyllum p. 39, *maichense* sp. n. p. 40 fig. Permian eastern U.S.S.R., [FOMITCHEV].

†*Trachyphyllia geoffroyi* p. 63 fig., *amarantum* p. 64 fig., MA.—*T. p. 105, geoffroyi* p. 106, NEMENZO.—*T. geoffroyi* p. 24 fig., UTINOMI.

†*Tryplasma vermiculare* p. 213 fig., SCHOUPPÉ & STACUL.

†*Tschussowskenia ? takedai* sp. n. p. 36 fig. Carboniferous Japan, KATO (1).

†*Tubastraea* [as *Tubastrea* (sic)] *aurea* p. 427, SQUIRES.—*T. aurea* pp. 23, 26 fig., UTINOMI.

†*Turbinaria tubifera* p. 80 fig., cf. *marmorea* p. 80 fig., *irregularis* p. 80 fig., *magna* p. 81 fig., *contorta* p. 81 fig., *elegans* p. 81 fig., *T. (Gemmipora) pellata* p. 81 fig., *T. danae* p. 82 fig., *agaricia* p. 82 fig., *foliosa* p. 82 fig., *reniformis* p. 82 fig., *auricularis* p. 82 fig., *crater* p. 83 fig., MA.—*T. heronensis* sp. n. p. 287 fig. Great Barrier Reef, WELLS.

†*Turbinolia dixonii* p. 32 fig., ANON.

†*Verbeekia* p. 43, *ussurica* sp. n. p. 44 fig., var. *elongata* var. n. p. 46 fig., Permian eastern U.S.S.R., [FOMITCHEV].

†Verbeekiellinae subfam. n. (of Timorphyllidae) p. 345, SCHOUPPÉ & STACUL Palaeontographica Suppl. 45 4 1959.

†*Vollbrechtophyllum* p. 148, *dartingtonensis* sp. n. p. 149 fig. Devonian S. England, sp. p. 150, MIDDLETON.

†*Waagenophyllum indicum* p. 482 fig., RAMOVŠ.

†*Wannerophyllum* p. 345, *asteroides* sp. n. p. 346 fig. Permian Timor, *cristatum* fig. pl. 13, SCHOUPPÉ & STACUL.

†*Wentzeella* p. 48, *szechuanensis* p. 49 fig., [FOMITCHEV].—*W. osobudaniensis* sp. n. p. 83 fig. Permian Japan, IGŌ.

†*Zaphrentis calyculata* p. 248, *cainodon* p. 258, cf. *robusta* KOKER p. 262, are all spp. of *Duplophyllum*, and *pachyderma* p. 275 and *incerta* p. 277 are spp. of *Basleophyllum*, SCHOUPPÉ & STACUL.—*Z. cornicula* p. 27 fig., "*Z.*" *delanoui* p. 31 fig., SCHOUPPÉ & STACUL (1).—*Z. karagandensis* sp. n. pp. 13, 85 fig. L. Carboniferous Kazakhstan, aff. *constricta* p. 14 fig., VOLKOVA (1).

†*Zaphrentoides (Zaphrentoides) konincki* p. 28 fig., *Z. (Hapsiphyllum) calcariformis* p. 27 fig., SCHOUPPÉ & STACUL (1).

†Zaphrentoididae p. 238, incert. sed. form A p. 290 fig., form B p. 291 fig., SCHOUPPÉ & STACUL.

†*Zelophyllia salairica* nom. nud. p. 197, [IVANIYA (3)].

CTENOPHORA

Beroe cucumis p. 68 fig., [NAUMOV].

Euplocamis cucumis p. 68 fig., [NAUMOV].

Hydroctena salenskii see Hydrozoa.

Key to Californian spp. p. 47, BOLIN in LIGHT.

INCERTAE SEDIS

†*Cambrotrypa* gen. n. p. 89 fig., type sp. (by original designation) *montanensis* sp. n. p. 89 fig. M. Cambrian Montana, U.S.A., FRITZ & HOWELL Proc. geol. Assoc. Canada 11 1959.

†*Melanocladus robustus* p. 28 fig., POKORNÝ.

†*Melanoclava betavida* p. 28 fig., POKORNÝ.

†*Melanocyathus dentatus* p. 28 fig., POKORNÝ.

†*Melanorhachis regularis* p. 28 fig., POKORNÝ.

†*Melanorhabdus nodifer* p. 28 fig., POKORNÝ.

†*Melanosoma piroforma* p. 29 fig., POKORNÝ.

†*Melanosteus acutus* p. 29 fig., POKORNÝ.

†*Microtabula hexagonalis* p. 29 fig., POKORNÝ.

†*Mirachitina quadrupedis* p. 29 fig., POKORNÝ.

THE ZOOLOGICAL RECORD

THE object of The Zoological Record is to give, by means of an annual volume, complete lists of the works and publications relating to zoology in all its branches that have appeared during the year preceding the issue of the volume, together with a subject and systematic index.

The complete volume can be obtained from the Society at the price of £10 0s. 0d. per copy.

The following volumes are available :—

In Reprint Edition

Vols. 1-25 (1864-1889) obtainable only from Messrs. Butterworths, 88 Kingsway, London, W.C.2.

Complete set of 25 volumes, bound in cloth, price £208 2s. 0d.

Complete set of 25 volumes, in paper covers, price £199 12s. 6d.

Separate volumes, in paper covers, price £8 18s. 6d. each.

In Original Edition

Vols. 65-71 (1928-1934) at £5 each.

Vols. 86-91 (1949-1954) at £6 each.

Vols. 92-94 (1955-1957) at £8 each.

For particulars of the availability and prices of separate Sections, application should be made to the Scientific Director, The Zoological Society of London, Regent's Park, London, N.W.1.

It should be noted that the separate Section *Insecta* can only be obtained from the Commonwealth Institute of Entomology, 56 Queen's Gate, London, S.W.7.

NOMENCLATOR ZOOLOGICUS.—Lists the names of all the genera and subgenera in zoology from the 10th Edition of Linnaeus 1758 to the end of 1945, with a bibliographical reference to the original description of each. Price 17½ guineas, postage extra. Price of separate volumes: Vols. 1-4 (1758-1935), Vol. 5 (1936-1945), 3½ guineas each, postage extra.

SEPARATE SECTIONS OF THE ZOOLOGICAL RECORD

In addition to the complete bound volume, the separate Sections may be obtained singly, bound in printed paper covers.

The prices of the Sections from Volume 96 are :—

								<i>s.</i>	<i>d.</i>
1.	Comprehensive Zoology	..	..	..	..	..	..	4	0
2.	Protozoa	..	..	..	..	..	..	13	0
3.	Porifera	..	..	..	..	..	..	3	0
4.	Coelenterata	..	..	..	..	..	..	5	0
5.	Echinodermata	..	..	..	..	..	..	4	0
6.	Vermes	..	..	..	..	..	..	12	0
7.	Brachiopoda	..	..	..	..	..	..	4	0
8.	Bryozoa	..	..	..	..	..	..	3	0
9.	Mollusca	..	..	..	..	..	..	16	0
10.	Crustacea	..	..	..	..	..	..	8	0
11.	Trilobita	..	..	..	..	..	..	8	0
12.	Arachnida	..	..	..	..	..	..	14	0
13.	*Insecta	..	..	..	..	..	..	60	0
14.	Protochordata	..	..	..	..	..	..	3	0
15.	Pisces	..	..	..	..	..	..	11	0
16.	Amphibia	..	..	..	..	..	..	12	0
17.	Reptilia	..	..	..	..	..	..	12	0
18.	Aves	..	..	..	..	..	..	12	0
19.	Mammalia	..	..	..	..	..	..	12	0
20.	List of New Genera and Subgenera	..	..	..	..	..	..	4	0

* Obtainable only from the Commonwealth Institute of Entomology, 56 Queen's Gate, London, S.W.7.

